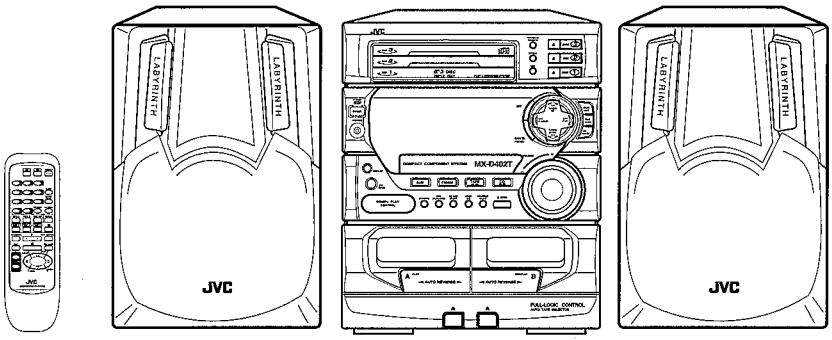
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

MX-D402T

UNIT No. CA-D402T/SP-D402



Area Suffix	
A	Australia
U	Other Areas
UB	Hong Kong
UP	Korea
US	Singapore
UT	Taiwan
UX	Saudi Arabia
J	U.S.A.
C	Canada

COMPACT disc DIGITAL AUDIO

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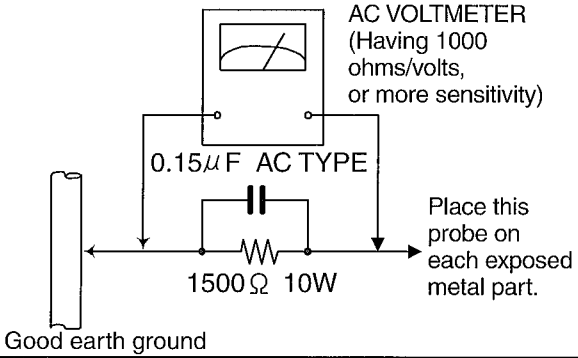
No.20670
May. 1998

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet , particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Safety Precautions (U.K only)

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (⚠) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

Warning

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5. It is essential that safety critical components are replaced by approved parts.
6. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Important for Laser Products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

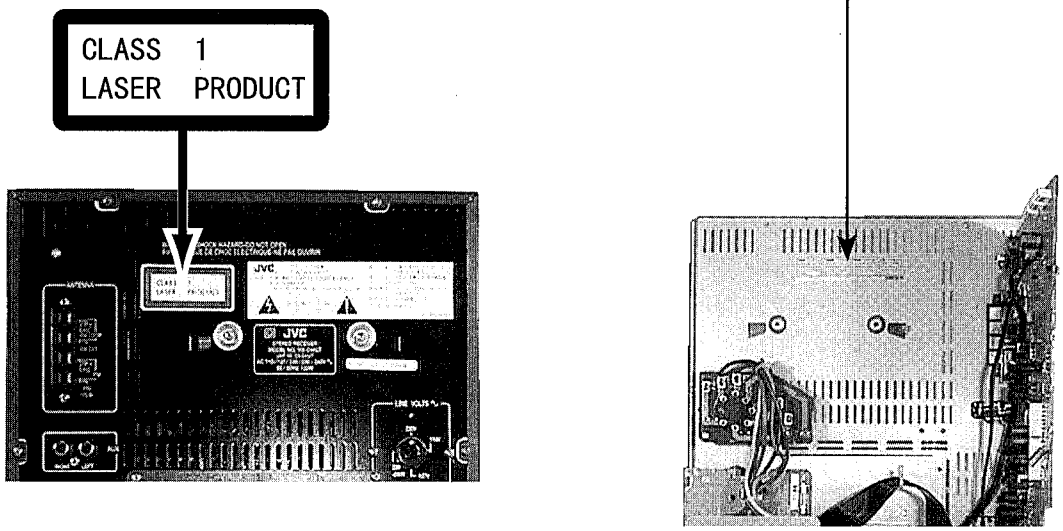
ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

(Except for the U.S.A.and Canada and Korea)

DANGER : Invisibie laser radiation when open and interlock or defeated. AVOID DIRECT EXPOSURE TO BEAM (e)	VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen. (d)	VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen. (s)	ADVARSEL :Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (f)



JVC

VICTOR COMPANY OF JAPAN, LIMITED

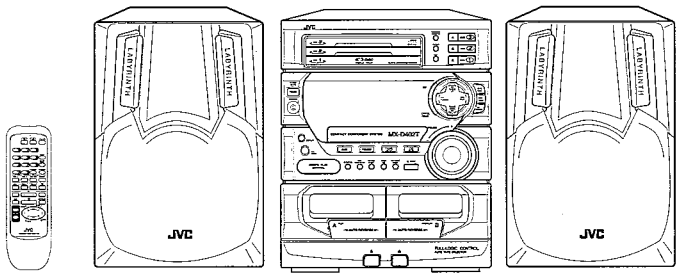
JVC

COMPACT COMPONENT SYSTEM

MX-D402T

Consists of CA-D402T and SP-D402.

COMPACT disc DIGITAL AUDIO



SP-D402 CA-D402T SP-D402

INSTRUCTIONS

For Customer Use:

Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

GVT0003-001A
[J]

CA-D402T

Warnings, Cautions and Others

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For Canada/pour le Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT
ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQUAU FOND

Caution — POWER switch!
Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.

IMPORTANT FOR LASER PRODUCTS

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.

CAUTION

To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

Thank you for purchasing the JVC Compact Component System.
We hope it will be a valued addition to your home, giving you years of enjoyment.
Be sure to read this instruction manual carefully before operating your new stereo system.
Here you will find all the information you need to set up and use the system.
For questions that are not be answered in the manual, contact your dealer.

Features

Easy operation

COMPU PLAY

Great sound

Triple Tray

Three timers

Here are some of the things that make your System powerful and easy to use.

- The controls and operations have been designed to make them very easy to use, so you can spend your time listening to music.
  - With the One Touch Operation feature of JVC's **COMPU PLAY** you can turn on the System and start the radio, the Cassette Deck, or the CD Player with a single touch.
- To get such great sound from such a compact package the System has:
  - Programed sound mode includes live surround effects **D. CLUB, HALL,** and **STADIUM**. It also includes S.E.A (Sound Effect Amplifier) effects **ROCK, POP,** and **CLASSIC**. You can also register up to three customized settings (MANUAL 1 to 3).
- CD changer function can operate 3 discs.
  - Discs can be changed during play using the **TRIPLE TRAY**.
  - Continuous, random or program play of 3 discs.
- The three timers, **Daily Timer, Recording Timer,** and **Sleep Timer** are extremely easy to set.

How This Manual Is Organized

In this manual we have incorporated some special features:

- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditions, which are discussed in the Common Operations section.
- Name of buttons and controls are written in all capital letters like this: SOUND MODE.

The manual has a table of contents to help you quickly look up what you want to know.
We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your System.

IMPORTANT CAUTIONS

1. Installation of the Unit

- Select a place which is level, dry and neither too hot nor too cold. (Between 5°C and 35°C or 41°F and 95°F.)
- Leave sufficient distance between the Unit and a TV.
- Do not use the Unit in a place subject to vibrations.

2. Power cord

- Do not handle the power cord with wet hands!
- Some power (12 watts) is always consumed as long as the power cord is connected to the wall outlet.
- When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.

3. Malfunctions, etc.

- There are no user-serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object into the Unit.

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Getting Started

Accessories

Check that you have all of the following items, which are supplied with the System.

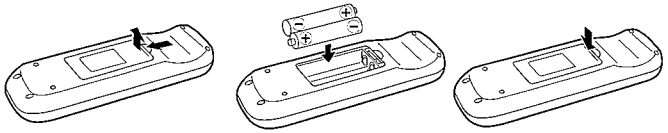
AM Loop Antenna (1)
Remote Control (1)
Batteries (2)
FM Wire Antenna (1)

If any of these items is missing, contact your dealer immediately.

How to Put Batteries in the Remote Control

Match the polarity (+ and –) on the batteries with the + and – markings in the battery compartment.

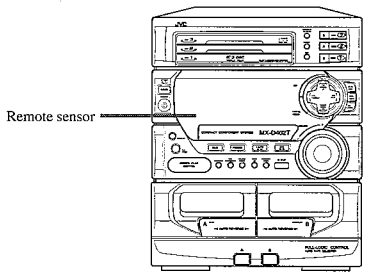
R6P (SUM-3)/AA (15F)



CAUTION: Handle batteries properly.
To avoid battery leakage or explosion:
- Remove batteries when the Remote Control will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Do not use an old battery with a new one.
- Do not use different types of batteries together.

Using the Remote Control

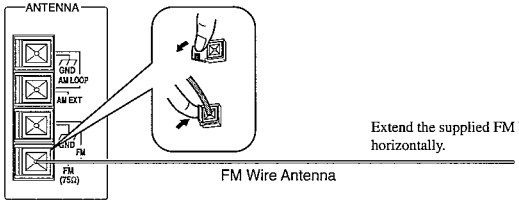
The Remote Control makes it easy to use many of the functions of the System from a distance of up to 7m (23 feet) away.
You need to point the Remote Control at the remote sensor on the System's front panel.



CAUTION: Make all connections before plugging the Unit into an AC power outlet.

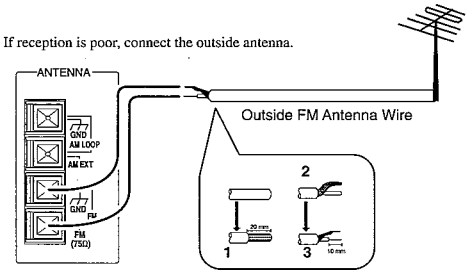
Connecting the FM Antenna

Using the Supplied Wire Antenna



Using an FM 75-Ohm Antenna Cable (not supplied)

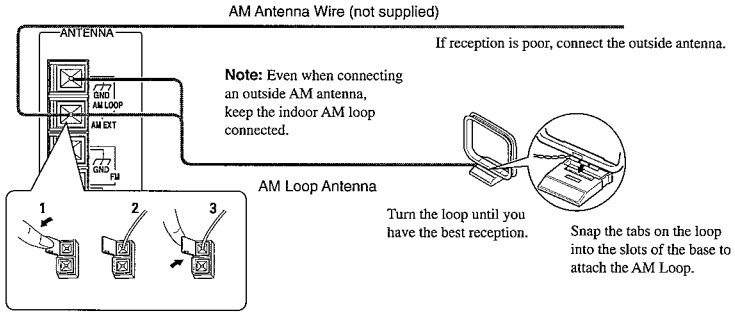
If reception is poor, connect the outside antenna.



Before attaching a 75-ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied FM Wire Antenna.

CAUTION: To avoid noise, keep antennas away from metallic parts of the System, connecting cord and the AC power cord.

Connecting the AM Antenna

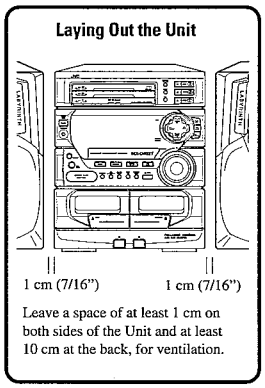

AM Antenna Wire (not supplied)
If reception is poor, connect the outside antenna.
ANTENNA
GND
AM LOOP
AM EXT
GND
FM
Note: Even when connecting an outside AM antenna, keep the indoor AM loop connected.
AM Loop Antenna
1
2
3
Turn the loop until you have the best reception.
Snap the tabs on the loop into the slots of the base to attach the AM Loop.

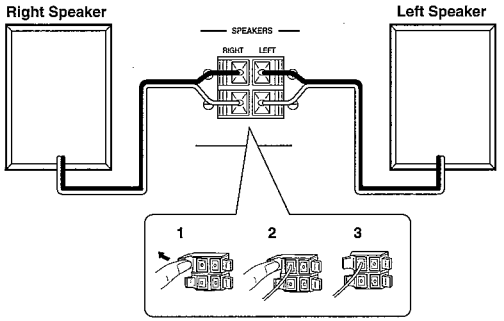
CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the Speakers

For each speaker, connect one end of the speaker wire to the speaker terminals on the back of the System.

1. Open each of the terminals and insert the speaker wires firmly, then close the terminals.
2. Connect the red (+) and black (–) terminals of the right side speaker to the red (+) and black (–) terminals marked RIGHT on the System.
   Connect the red (+) and black (–) terminals of the left side speaker to the red (+) and black (–) terminals marked LEFT on the System.


Laying Out the Unit
1 cm (7/16")
1 cm (7/16")
Leave a space of at least 1 cm on both sides of the Unit and at least 10 cm at the back, for ventilation.

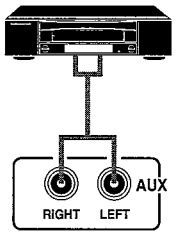


IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.
CAUTION: If a TV is installed near the speakers, the TV may display irregular colors. In this case, set the speakers away from the TV.

Connecting Auxiliary Equipment

VCR or other equipment

To listen to this source, press the AUX button.



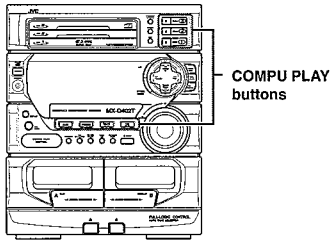
Now you can plug the AC power cord into the wall outlet, and your System is at your command!

COMPU PLAY

COMPU PLAY is JVC's feature that lets you control the most frequently used functions of the System with a single touch.
One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have specified. If the Unit is not ready, such as no CD or tape in place, the Unit still powers on so you can insert a CD or tape.
How One Touch Operation works in each case is explained in the section dealing with that function.
The COMPU PLAY buttons are:

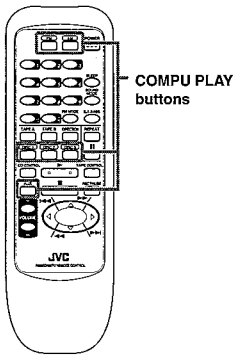
On the Unit

CD Player DISC 1 to DISC 3 buttons
CD Player Open/Close (⏏) buttons
CD ►/II button
TAPE ◄◄ ►► button
FM/AM button
AUX button

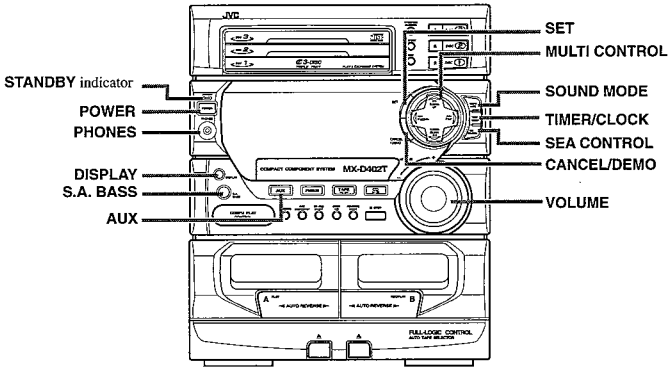


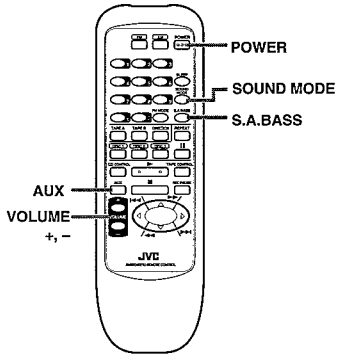
On the Remote Control

FM button
AM button
DISC 1 to DISC 3 buttons
AUX button

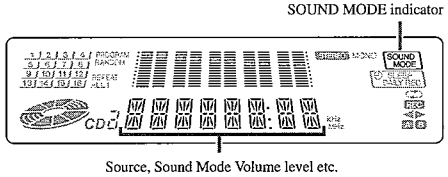


Common Operations



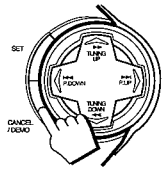


Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Demo Mode



When the System is connected to an AC power outlet, a Demo automatically starts showing some of the system's features.
The Demo display cycles through the following items repeatedly.

- Scrolling display of "DEMO MODE START".
- Demo of Sound Modes.
- Demo of S.A. BASS
- Demo of continuous play from DISC 1 to DISC 3.

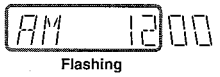
To turn the Demo off, press any of the operation buttons. "DEMO OFF" appears on the display and the Demo automatically stops.

To turn the Demo on, press CANCEL/DEMO for more than 2 seconds.

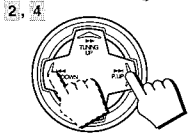
Setting the Clock

Before operating the unit, set the correct time.
You can set the clock whether the Unit is on or off.

1. Press TIMER/CLOCK.
The hour digits begin flashing.



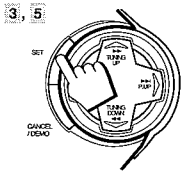
Flashing



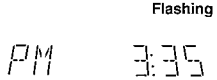
2. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to set the hours.
Press ⏭ P. UP to increase the hour. Press ⏮ P. DOWN to decrease the hour. Holding down continuously changes the hour setting more rapidly.

3. Press SET.
The minute digits begin flashing.

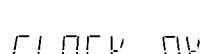
Flashing



4. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to set the minutes.
Press ⏭ P. UP to increase the minutes. Press ⏮ P. DOWN to decrease the minutes. Holding down continuously changes the minute setting more rapidly.



5. Press SET.
"CLOCK OK" appears on the display.
The clock stops flashing, and the clock timer starts from 0 second.



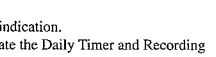
- If the clock is not set, "AM 12:00" will flash instead of the clock indication.
- When the time has been set, TIMER/CLOCK can be used to operate the Daily Timer and Recording Timer.
- To adjust the time once the clock has been set, press CLOCK/TIMER 5 times and follow the procedure above.

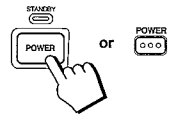
CAUTION: If there is a power failure, the clock loses its setting. The display shows "AM12:00", and the clock must be reset.

Turning the Power On and Off

Turning the System On

Press POWER.
"WELCOME" appears on the display and the STANDBY indicator goes out.



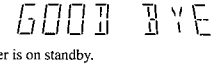


The System comes on ready to continue in the mode it was in when the power was last turned off.

- If the last thing you were doing was listening to a tape in Deck B, you are now ready to listen to a tape again in Deck B, or you can change to another source.
- If you were listening to the Tuner last, the Tuner comes on playing the station it was last set to.

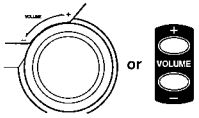
Turning the System Off

Press POWER again.
"GOOD BYE" appears on the display for a while and the STANDBY indicator lights up. The clock time appears on the display.



- Some power (12 watts) is always consumed even though the power is on standby.
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset to AM12:00 immediately, and preset Tuner stations will be erased in a few days.

Adjusting the Volume



Turn VOLUME clockwise to increase the volume or anticlockwise to decrease it.
Turning VOLUME quickly also adjusts the volume level quickly.
When using the Remote Control, press VOLUME + to increase the volume or press VOLUME – to decrease it.
You can adjust the volume level between 0 and 50.

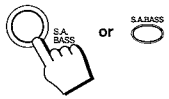
CAUTION: The Volume cannot be adjusted while the Unit is on STANDBY. DO NOT turn on the Unit and/or start playing any source without setting the VOLUME control to 0; otherwise, the sudden blast of sound can damage your hearing, speakers and/or headphones.

For private listening

Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers.
Be sure to turn down the volume before connecting or putting on headphones.

Reinforcing the Bass Sound

S.A. (Signal Adaptive) BASS adjusts low tones at low volume to enhance their effect. When the volume level is low, this enhances low tones that are normally difficult to hear and adjusts low tones to a fixed level to reduce low tone distortion.



Press S.A. BASS.
Pressing S.A. (Signal Adaptive) BASS changes the bass setting in the following order.
→ **SA-BASS1** → **SA-BASS2** → OFF → (back to the beginning)

The S.A. BASS indicator lights up, and "SA-BASS1" or "SA-BASS2" appears on the display for three seconds.

- SA-BASS2 enhances low tones more than SA-BASS1.

To cancel the effect, press S.A. BASS until "OFF" appears on the display. The button light goes out.

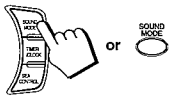
To recall the previous S.A. BASS mode, press S.A. BASS once.

- When listening to recording with low volume low tones, the difference between SA-BASS1 and SA-BASS2 is clear. When listening to recording with louder low tones, however, the difference between SA-BASS1 and SA-BASS2 may not be so clear.

Sound Modes

The System has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself.
You can also create up to three of your own customized S.E.A. (Sound Effect Amplifier) settings and store them in the Unit's memory (MANUAL 1, MANUAL 2, MANUAL 3).

- The preset sound modes include modes using surround effects and modes using S.E.A. effects.
- Sound Mode effects cannot be recorded.



To get an effect, press SOUND MODE repeatedly until the Sound Mode you want appears on the display. The Sound Mode selected will appear on the display for three seconds. When a surround effect mode is selected, the frame around the SOUND MODE indicator will light up. When a S.E.A. effect mode is selected, the SOUND MODE indicator will light up.
Each time you press SOUND MODE, the Sound Mode changes as follows:

→ **D. CLUB** → **HALL** → **STADIUM** → **ROCK** → **POP** → **CLASSIC** → **MANUAL 1** → **MANUAL 2** → **MANUAL 3** → OFF → (back to the beginning)

Surround effect modes

SOUND MODE

D. CLUB (Dance Club)	Increases resonance and bass.
HALL	Adds depth and brilliance to the sound, like in a concert hall.
STADIUM	Adds clarity and spreads the sound, like in an outdoor stadium.

S.E.A. effect modes

SOUND MODE

ROCK	Boosts low and high frequencies.
POP	Good for vocal music.
CLASSIC	Set for wide and dynamic sound stereo systems.

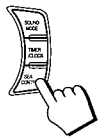
To cancel an effect, press SOUND MODE until "OFF" appears on the display. The SOUND MODE indicator goes out.

To recall the previous Sound Mode, press SOUND MODE once.

Customizing a Sound Mode

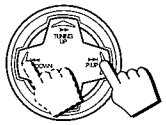
You can change an existing sound mode to suit your own preferences. These changed settings can be stored in the Unit's sound mode memory.

1. Select the Sound Mode you want to change.
If you select D. CLUB, HALL, or STADIUM, the surround effect remains unchanged, but you can adjust the S.E.A. effect.

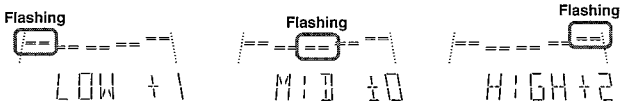


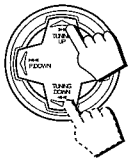
2. Press SEA CONTROL.
The low tone section of the tone equalizer flashes. Once "SEA CONT" appears, the low tone levels will appear.

Note: If no adjustments are made for 10 seconds after SEA CONTROL is pressed, Sound Mode will appear on the display then revert to the previous display.

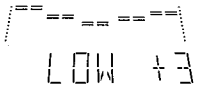


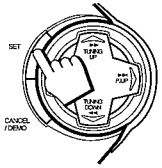
3. Use MULTI CONTROL to adjust to any Sound Mode desired.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to select the tone range you want to adjust. You can adjust "LOW", "MID" or "HIGH" tone.



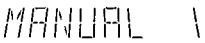


Press ◀◀ TUNING UP or TUNING DOWN ▶▶ on the MULTI CONTROL to adjust the level.
The level can be adjusted between –3 and +3 in 7 steps.



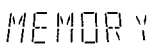


4. Press SET.
"MANUAL 1" appears on the display.



5. Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to select the MANUAL number for the memory.

6. Press SET again.
"MEMORY" appears for 2 seconds.
The setting that has been created is stored in the memory.

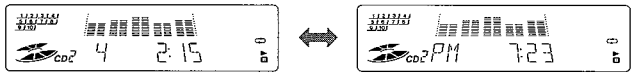


- The adjustment you have made will apply to the sound you hear.
- If you store new settings to a memory number that has already been used, the new settings replace the existing setting.

Changing the Display

- The display normally indicates each source, but it can be switched to the clock time.

Press DISPLAY.
Each time you press the button, the source and the clock time are shown alternately on the display.



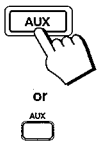
Source (example CD Player) Clock time

- The clock indication can be interchanged with the source indication using the Unit or Remote Control.
- The clock indication may change to source indication depending on the operation of the Unit.

Listening to Auxiliary Equipment

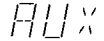
By playing the sound from auxiliary equipment through the System, you can gain control over how the music or program sounds. Once the connected equipment is playing through the System, you can apply the sound effects.

- First make sure that the auxiliary equipment is properly connected to the System. (See page 5).



1. Turn down the volume level to 0.

2. Press AUX.
"AUX" appears on the display. The AUX button on the Unit lights up.



COMPU PLAY
When AUX is pressed while the power is on standby, the power is automatically turned on.

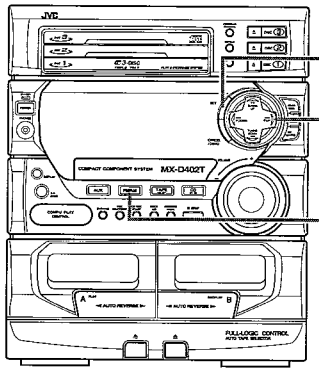
3. Start playing the equipment.

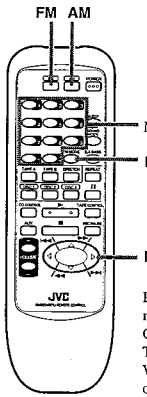
4. Adjust the volume level to the desired listening level.

5. Select a Sound Mode, if you wish.

To cancel the setting
Change the source by starting any one of the System's built-in sound sources, such as the Tuner or CD Player.

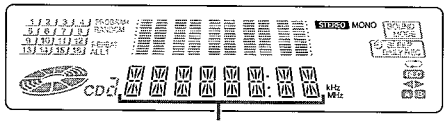
Using the Tuner





Pressing FM or AM makes the Remote Control ready for the Tuner operations.
When the Unit is being operated with the Remote Control, press FM or AM first.

Display



Band display, Frequency display, Preset channel

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

You can listen to both FM and AM stations. Stations can be tuned in manually, automatically, or from preset memory storage.

■ Before listening to the radio:
- Check that both the FM and AM antennas are firmly connected. (See page 4.)

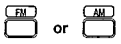
Tuning in a Station

Press FM/AM on the Unit (or FM or AM on the Remote Control) to turn on the radio.
The frequency of the previously selected channel appears on the display.

Switching between Frequency Bands

On the Unit
Press FM/AM.
Each time you press the button, the band alternates between FM and AM.

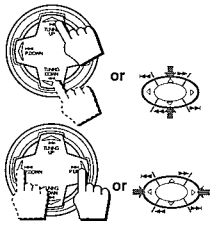
COMPU PLAY
When FM/AM is pressed while the power is on standby, the power is automatically turned on.



On the Remote Control
To tune in FM stations, press FM.
To tune in AM stations, press AM.

COMPU PLAY
When FM or AM is pressed while the power is on standby, the power is automatically turned on.

Three Ways to Select a Station



■ Press ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL repeatedly to move from frequency to frequency until you find the one you want. (Manual Tuning).

OR

■ Press and hold ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL for a few seconds, the frequency starts changing on the display. When a station is tuned in, the frequency stops changing. (Auto Tuning).

OR

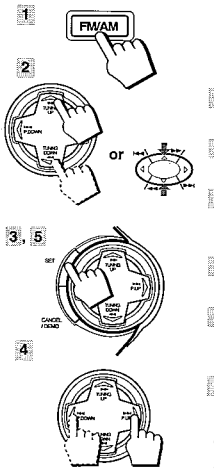
■ Possible only after presetting stations.
Press once and release |◄◄ P. DOWN or ►►| P. UP on the MULTI CONTROL to go to the next preset station.

You can also use the Remote Control to tune in preset channels:

1. Press FM or AM so that you can receive the last station tuned in.
2. Select the station by entering the preset number in the number keys of the Remote Control.
   - Example: for channel 5, press 5. For channel 15, press +10 then 5. For channel 20, press +10, then 10. For channel 30, press +10 twice then 10.

- After you have selected the preset number and the number appears, the broadcast frequency of the selected channel appears on the display.

Presetting Stations



You can preset up to 30 FM stations and up to 15 AM stations for the preset numbers.
Note: In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

1. Select a band by pressing FM/AM on the Unit.
When using the Remote Control, press FM or AM.

2. Press ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL to tune into a station.

3. Press SET.
"SET" flashes for 5 seconds.
While it is still flashing, carry out the following procedure.

4. Press |◄◄ P. DOWN or ►►| P. UP on the MULTI CONTROL on the Unit to set the preset number.

5. Press SET again.
"STORED" flashes for 2 seconds. The preset station is stored in the memory.

6. Repeat steps 1 to 5 for each station you want to store in memory using different preset numbers.

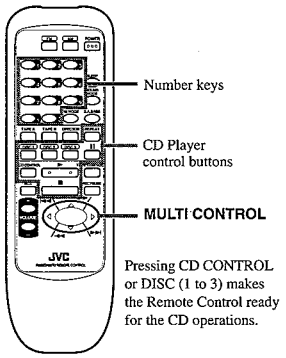
CAUTION: If the Unit is unplugged or if a power failure occurs, the preset stations will be erased in a few days. If this happens, preset the station again.

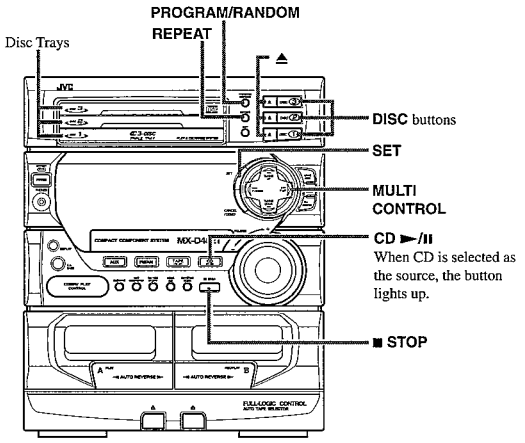
Changing the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy, press FM MODE on the Remote Control so that the MONO indicator lights up on the display. Reception improves, but there is no stereo effect.

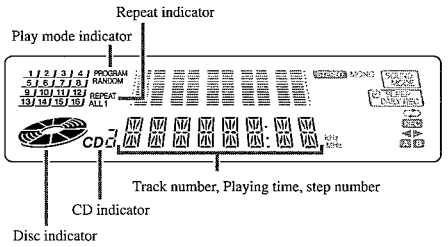
To restore the stereo effect, press FM MODE on the Remote Control so that the MONO indicator goes out. In this stereo mode, the STEREO indicator lights up and you can hear stereo effects, when a program is broadcast in stereo.

Using the CD Player


Number keys
CD Player control buttons
MULTI CONTROL
Pressing CD CONTROL or DISC (1 to 3) makes the Remote Control ready for the CD operations.



Display



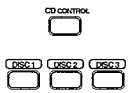
Disc indicator
Flashes while a CD is playing.
Is lit when a CD has stopped or is paused.

CD indicator
Indicates the number of the disc selected.

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The System's CD Player has an Automatic Changer with 3 disc trays. You can use Continuous, Random, Program or Repeat Play for the discs in DISC 1, DISC 2 and DISC 3. Repeat Play can repeat all the tracks on all the CD's or one track on one CD. There is also the Tray Lock function, which safely keeps discs in the trays.

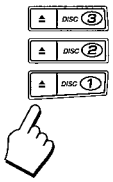
Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.



Entering CD Operation Mode with the Remote Control

Pressing CD CONTROL or DISC (1 to 3) makes the Remote Control ready for the CD operations.
Operate the CD player with ►, ■, MULTI CONTROL and number keys.
The explanation provided in this section assumes that the Remote Control has been put into CD operation mode. When you use the Remote Control, press CD CONTROL first.

Loading CDs

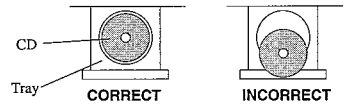


1. Press ▲ on the CD Player you want to insert the disc onto.
"OPEN" appears on the display and the disc tray slides out.

COMPU PLAY
When ▲ is pressed while the power is on standby, the power is automatically turned on.

2. Place a CD, with its label side up, onto the tray.

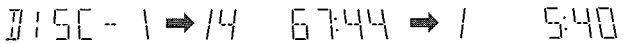
ATTENTION: *To avoid malfunctions when you play a CD, set the CD in the right place at the center of the tray.*



3. Press ▲ to close the tray.
"CLOSE" appears on the display.

4. Repeat steps 1 to 3 to insert other discs onto the other trays.
- To continue putting discs onto other trays, even if a tray is open, by pressing the ▲ button of another disc tray, the open tray will close automatically, and the new disc tray will slide out.

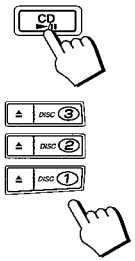
■ When you place a CD onto the currently selected tray, whose disc number shown on the CD indicator, reading of the CD starts. The total number of tracks and total playing time appear after the reading is completed, then the playing time of the first track appears.



Reading now (flashing) | **Total number of tracks and playing time** | **Playing time of the 1st track**

■ To put an 8 cm CD onto a tray, insert it so that it is aligned with the groove in the tray's center.
■ If a tray is open when the System switches to the standby mode, the tray will close automatically.

Basics of Using the CD Player — Continuous Play



Playing a CD

Prepare the CDs.

On the Unit

Press CD ►/II.
The source is set to CD and play starts from the first track of the currently selected CD whose disc number shown on the CD indicator.

Press DISC (1 to 3) of the disc you want to play.
The source is set to CD and play starts from the first track of the selected CD.

COMPU PLAY
When CD ►/II or DISC (1 to 3) is pressed while the power is on standby, the power is automatically turned on.

■ When you press CD ►/II or DISC (1 to 3) while the disc tray is open, the tray will automatically close before beginning to play.
■ If there is no CD in the disc tray, "NO DISC" appears on the display.

Playing order of discs

■ When playback starts from DISC 1, the playing order is DISC 1 → DISC 2 → DISC 3.
When DISC 3 has finished, the CD Player stops.
■ When playback starts from DISC 2, the playing order is DISC 2 → DISC 3 → DISC 1.
When DISC 1 has finished, the CD Player stops.
■ When playback starts from DISC 3, the playing order is DISC 3 → DISC 1 → DISC 2.
When DISC 2 has finished, the CD Player stops.
- If any of the disc trays are empty, the CD Player skips that disc tray and continues through the remaining disc trays in the order shown above. When the last disc has finished playing, the Unit will stop automatically.

On the Remote Control

Press CD CONTROL then press ►.

The source is set to CD and play starts from the first track of the currently selected CD whose disc number shown on the CD indicator.

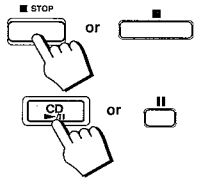
- If the above operation is carried out while the power is on standby, the power is automatically turned on.

Press DISC (1 to 3) of the disc you want to play.

The source is set to CD and play starts from the first track of the selected CD.

COMPU PLAY

When DISC (1 to 3) on the Remote Control is pressed while the power is on standby, the power is automatically turned on.



To stop play the disc, press ■ STOP (or ■ on the Remote Control). The display will show the total number of tracks and total playing time of the disc that was playing followed by the playing time of the first track.

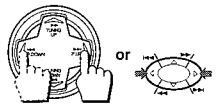
To stop play and remove the disc, press ▲ for the disc being played.

To pause, press CD ►/II (or II on the Remote Control). The playing time will flash.

To cancel pause, press CD ►/II (or ► on the Remote Control) the Unit. Play continues from the point where it was paused.

Selecting a Track

Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to select the track.



The selected track starts playing.

■ Each time you press I◄◄ P. DOWN or ►►I P. UP, the track changes by one.
Press and hold I◄◄ P. DOWN or ►►I P. UP to continuously change tracks.

Locating a Track with the Remote Control Directly

Using the number keys on the Remote Control allows you to go directly to the beginning of any track.

1. Press the DISC (1 to 3) for the disc tray containing the track you want to listen to.

- Example: for the third disc, press DISC 3.

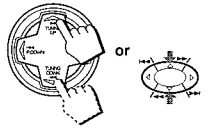
2. Enter the number of the track you want to listen to with the number keys.

The selected track starts playing.

- Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10. For track 32, press +10 three times, then 2.

Fast Forward / Reverse

Use ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL.



For Fast Forward, press and hold down ►► TUNING UP. For Reverse, press and hold down TUNING DOWN ◄◄. Release the button when the part you wish to listen to is reached.

Changing Discs While Playing

You can replace a CD in a tray not being used, while another CD is playing.

1. Press ▲ of the tray not being used.

The tray opens.

2. Replace the disc in the tray.

3. Press ▲ to close the tray.

Programing the Playing Order of the Tracks

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the CD Player.

■ You can program up to 32 steps in any desired order from among the discs in the CD player.
■ You can only make a program when the CD Player is stopped.

On the Unit

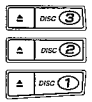
1. Press PROGRAM/RANDOM.

"PROGRAM" appears on the display and the PROGRAM indicator lights up.

PROGRAM

If you have already created a program, the last step of the previous program will appear on the display.

Each time you press the button, CD play mode changes as follows:
→ **PROGRAM** → **RANDOM** → No Play mode indicator (Continuous Play) → (back to the beginning)

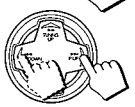


2. Select a disc with DISC (1 to 3).

The display changes to the Program Entry display and the disc number and track number flash for a few seconds.

Track number
Disc number
Step number

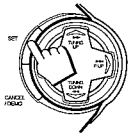
■ While the indications are flashing, perform the operations in steps 3 to 4. When the flashing indications change to "PROGRAM", repeat the operations in steps 2 to 4.



3. Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to select a track for programing.

The disc number and track number starts flashing on the display.

Flashing



4. Press SET.

The indications on the display stop flashing and remain lit. The step number appears on the display.

5. Repeat steps 2 to 4 to select the other tracks for the program.

To select another track from the same disc, repeat the procedure from step 3.

6. Press CD ►/II.

The Unit plays the tracks in the order you have programed them.

On the Remote Control

1. Press PROGRAM/RANDOM on the Unit.

"PROGRAM" appears on the display and the PROGRAM indicator lights up.

PROGRAM

If you have already created a program, the last step of the previous program will appear on the display unless you have erased the program.

Each time you press the button, CD play mode changes as follows:
→ **PROGRAM** → **RANDOM** → No Play mode indicator (Continuous Play) → (back to the beginning)

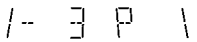
2. Select a disc with DISC (1 to 3).

The display changes to the Program Entry display and the disc number and track number flash for a few seconds.

Track number
Disc number
Step number

■ While the indications are flashing, perform the operation in step 3. When the flashing indications change to "PROGRAM", repeat the operations in steps 2 to 3.

3. Press the number keys (1 to 10 and +10) to select the tracks.
The indications on the display stop flashing and remains lit.
The selected track numbers light up and the step number appears on the display.
- Example: For track 5, press 5.
  For track 15, press +10 then 5.
  For track 20, press +10 then 10.
  For track 32, press +10 three times, then 2.



4. Repeat steps 2 to 3 to select the other tracks for the program.

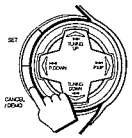
5. Press ►.
The Unit plays the tracks in the order you have programed them.

- If you try to program a 33rd track, "FULL" will appear on the display to let you know that the program is full.
- If you try to program a disc tray that is empty, or a track number that does not exist on a disc (for example, selecting track 14 on a disc that only has 12 tracks), the selected disc or track are skipped when the program is played.
- You can skip to a particular program step by pressing the MULTI CONTROL (I◄◄ P. DOWN or ►►I P. UP) or I◄◄ or ►►I on the Remote Control during Program Play.
- To play the programed tracks repeatedly, press REPEAT. For details, refer to "Repeating a Track or the Discs" on page 19.

To stop playing, press ■ STOP (or ■ on the Remote Control) once.
To delete all the tracks in a program, press ■ STOP (or ■ on the Remote Control) while the CD Player is stopped. The program is deleted and "PROGRAM" appears on the display.
To cancel Program Play, press ■ STOP (or ■ on the Remote Control) while "PROGRAM" is shown on the display.

Checking the Program

While the CD Player is stopped, use I◄◄ or ►►I on the Remote Control to check the contents of the program.
Each time you press ►►I, the program contents are shown on the display in the programed order.
Pressing I◄◄ displays the previous step in the program.



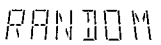
Changing the Program

Modify the contents of a program while the CD Player is stopped.
Press CANCEL/DEMO on the Unit, the last track in the program is deleted.
Each time you press the button, the last track listed in the program is deleted from the program.
To add a track to the program, follow the procedure above (on either the Unit or the Remote Control).
The new tracks are added to the end of the program.

Random Play

The tracks of all loaded CDs will play at random.

1. Press PROGRAM/RANDOM while the CD Player is stopped to change to the Random Mode display.



Each time you press the button, CD play mode changes as follows:
→ **PROGRAM** → **RANDOM** → No Play mode indicator (Continuous Play) → (back to the beginning)

2. Press CD ►/II.
The tracks of all the CDs are played in random order.
When all of the tracks have been played, the CD Player stops.

Note: Random Play cannot be activated with the DISC buttons and the number keys.

- You can skip to the next track by pressing ►►I P. UP on the MULTI CONTROL (or ►►I on the Remote Control) during Random Play. Each time you press the button, the next track is jumped to. (You cannot skip to the previous tracks, nor to the beginning of the current track during Random Play.)
- To continue with a different random track selection after the last track is played, press REPEAT to select REPEAT ALL before or during Random Play.

To cancel Random Play, press ■ STOP (or ■ on the Remote Control) twice. When the RANDOM indicator goes out, Continuous Play mode is resumed.

Repeating a Track or the Discs

You can have all the discs, the program or the individual track currently playing repeat as many times as you like.

Press REPEAT on the Unit.
Each time you press the button, the Repeat Modes change as follows.
→ **REPEAT ALL** → **REPEAT 1** → No indicator → (back to the beginning)

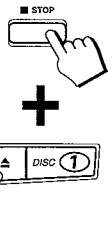
REPEAT ALL: Repeats all the tracks on the CDs, or all the tracks in the program.
REPEAT 1: Repeats one track on one CD.

To exit Repeat Mode, press REPEAT until the Repeat Mode indicator on the display goes out.

Tray Lock Function

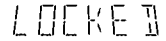
In order to safely keep the discs in the CD Player, the three trays can be electronically locked in a single operation.
When the Tray Lock function is on, the trays cannot be opened even if the ≜ button is pressed.
This function can only be accessed by using the buttons on the Unit itself.

Locking the Trays



1. Put the System's power into STANDBY mode.

2. While pressing ■ STOP, press ≜ for DISC 1 on the Unit.
"LOCKED" appears on the display to let you know that the trays have been locked.

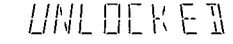


When the CD Player trays are locked, pressing ≜ displays the message "LOCKED" on the display and the trays do not open. Also, ≜ cannot be used to automatically turn on the power.

Unlocking the Trays

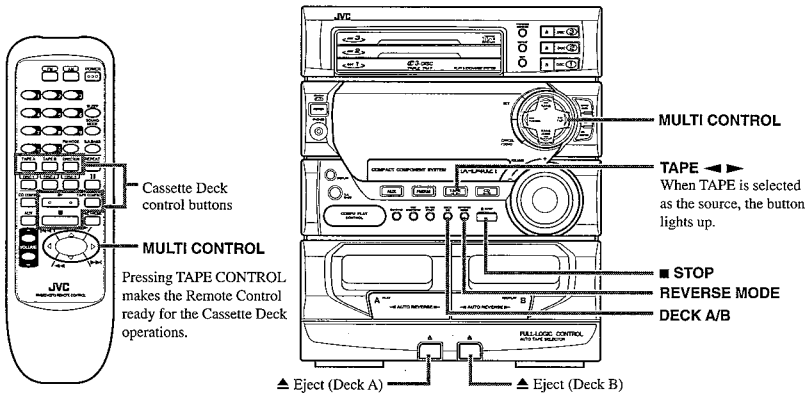
1. Put the System's power into STANDBY mode.

2. While pressing ■ STOP, press ≜ for DISC 1 on the Unit.
When the unlock operation is done, "UNLOCKED" appears on the display to show that the lock has been taken off.



The trays can now be opened by pressing ≜.
The ≜ can also be used to automatically turn on the power.

Using the Cassette Deck (Playing)


Cassette Deck control buttons
MULTI CONTROL
Pressing TAPE CONTROL makes the Remote Control ready for the Cassette Deck operations.
MULTI CONTROL
TAPE ◄ ►
When TAPE is selected as the source, the button lights up.
■ STOP
REVERSE MODE
DECK A/B
▲ Eject (Deck A)
▲ Eject (Deck B)

Display

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Tape Direction Indicator on the Display
The Tape Direction indicator tells you which direction the selected tape deck will use for playback.
During playback, the direction indicator flashes slowly.
During fast left or fast right, the indicator flashes quickly.
During Music Scan mode, the indicator flashes slowly and quickly alternately.

: Reverse Mode indicator
: Tape Direction indicator
A B : DECK A, B indicator

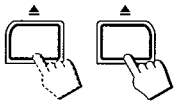
The Cassette Deck allows you to play, record and dub audio tapes.
■ With Automatic Tape Detection, you can listen to Type I or II tapes without changing any settings.

The use of tapes longer than 120 minutes is not recommended, since characteristic deterioration may occur and these tapes easily jam in the pinch-rollers and the capstans.

TAPE CONTROL

Entering the TAPE Operation Mode with the Remote Control
Pressing TAPE CONTROL makes the Remote Control ready for the Cassette Deck operations.
Operate the Cassette Deck with ►, ■ and MULTI CONTROL.
The explanation provided in "Using the Cassette Deck" section assumes that the Remote Control has been put into Cassette Deck operation mode. When you use the Remote Control, press TAPE CONTROL first.

Regular Play



When the power is already on, you can use this basic procedure:

1. Press down ▲ for the deck you want to use.

2. When the cassette holder opens, put a cassette in, with the exposed part of the tape down, toward the base of the Unit.
- If the cassette holder does not open, turn the power off, then back on and press down ▲ again.

3. Close the holder gently.
When both Deck A and Deck B contain a tape, the last deck to have a tape inserted is selected.
To change the selected deck, press DECK A/B. When using the Remote Control, press TAPE A or TAPE B.

4. Press TAPE ◄ ► on the Unit.

COMPU PLAY
When the TAPE ◄ ► is pressed while the power is on standby, the power is automatically turned on.

When using the Remote Control, first press TAPE CONTROL followed by ►.
If the power is on standby, the power will automatically be turned on.
When "TAPE" appears on the display, the tape play starts toward the direction currently selected.

To stop playing, press ■ STOP on the Unit (or ■ on the Remote Control).
To remove the tape, stop the tape, and press down ▲.
To change deck while playing a tape, press TAPE ◄ ► after pressing DECK A/B on the Unit or press ► after pressing TAPE A or TAPE B on the Remote Control.
To change the direction of a tape while it is playing, press TAPE ◄ ► on the unit or DIRECTION on the Remote Control.

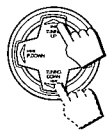
Fast Left And Fast Right

■ While the tape is stopped, press TUNING DOWN ◄◄ on the MULTI CONTROL (or ◄◄ on the Remote Control) and the tape will wind rapidly to the left side of the cassette without playing.
■ While the tape is stopped, press ►► TUNING UP on the MULTI CONTROL (or ►► on the Remote Control) and the tape will wind rapidly to the right side of the cassette without playing.

Note: Deck A and Deck B cannot be used for playback at the same time.

Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate selections, then plays the next selection.

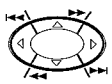


Finding the Beginning of the Current Selection

Press ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) during play.

■ Make sure that you press ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) in the opposite direction to that in which the tape is playing. Searching stops at the beginning of the current selection, and the current selection starts automatically.

or



Finding the Beginning of the Next Selection

Press ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) during play.

■ Make sure that you press ◄◄ TUNING DOWN or TUNING UP ►► on the MULTI CONTROL (or ◄◄ or ►► on the Remote Control) in the same direction as that in which the tape is playing. Searching stops at the beginning of the next selection, and the next selection starts automatically.

Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it will not work well if your tape has • • •

- No blank at the beginning of a selection.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these as 4-second long blanks. If this happens, just scan again until you reach the selection you want.

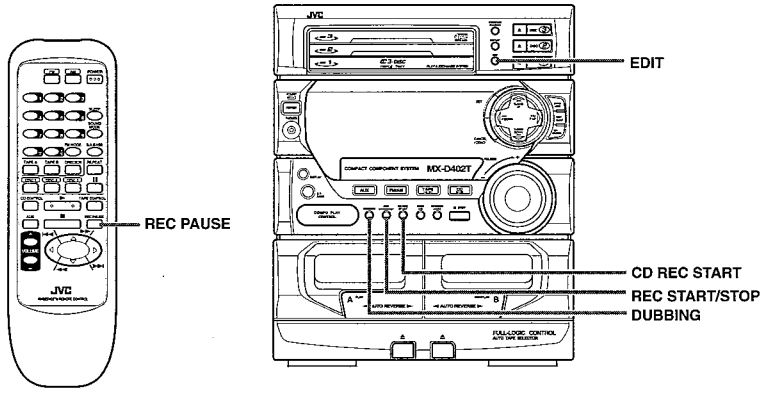
Reverse Mode

■ Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side.
Each time you press REVERSE MODE, the Reverse Mode turns on and off alternately.

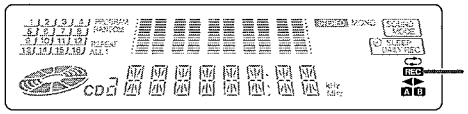
Reverse Mode ON Reverse Mode OFF

■ **Continuous Play:** With the Reverse Mode indicator on, when tape playback in the reverse (◄) direction finishes, the Unit always checks to see if a tape is in the other deck. If there is, it automatically starts playing. This Continuous Play function works regardless of which deck starts first.

Using the Cassette Deck (Recording)



Display



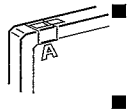
When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Things to Know before You Start Recording

■ **It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable program and in any literary, dramatic, musical, or artistic embodied therein.**

■ When you want to record onto both sides of a tape, you can set Reverse mode on to do so. However, recording automatically stops after recording in the ◄ direction in Reverse mode. Therefore, make sure that the tape direction is ► when recording with Reverse mode on.

■ The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by volume control. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.



■ Two small tabs on the back of the cassette tape, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first.
However, when a Type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.

■ When recording, you can hear Sound Mode effects through the speakers or headphones. However, the sound is recorded without Sound Mode effects.

■ Type I and Type II tapes can be used for recording.

Note: At the start and end of cassette tapes, there is leader tape which cannot be recorded onto. Depending on the recording source, the first part of the recording may be missing because of the leader. When recording CDs or radio broadcasts, to get the beginning of the recording on the tape, first wind on the leader before beginning recording.

CAUTION: If recordings you have made have excessive noise or static, the Unit may be too close to a TV which was on during recording. Either turn off the TV or increase the distance between the TV and the System.

Standard Recording

This is the basic method for recording any source. The System also has special ways for recording CD to tape, and tape to tape, which save your time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method described below; just substitute the source you want into this procedure, such as a CD or the Tuner. You can also record from auxiliary source with this procedure.

Using the Unit

1. Insert a blank or erasable tape into Deck B.

2. Press REVERSE MODE if you want to record on both sides of the tape.
Reverse Mode comes on.
- When using Reverse Mode, insert the tape so that it will be recorded in the forward (►) direction.

3. Check the recording direction for the tape.
Check that the Tape Direction indicator is the same as that for the tape in the tape deck. If the directions are different, press ■ STOP after pressing TAPE ◄◄ ►► to set the tape direction.
- When using the Reverse Mode to record both sides of a tape, check that the Tape Direction indicator is in the forward (►) direction. If the direction indicator is not in the forward (►) direction, press TAPE ◄◄ ►► then press ■ STOP.

4. Prepare the source, for example, by tuning in a radio station, loading CDs, or turning on connected equipment.

5. Press REC START/STOP.
The REC indicator lights up and the System begins recording.

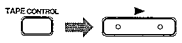
Using the Remote Control

1. Insert a blank or erasable tape into Deck B.

2. Press REVERSE MODE on the Unit if you want to record on both sides of the tape.
Reverse Mode comes on.
- When using Reverse Mode, insert the tape so that it will be recorded in the forward (►) direction.

3. Prepare the source, for example, by tuning in a radio station, loading CDs, or turning on connected equipment.

4. Press REC PAUSE.
The REC indicator starts flashing.



5. Press TAPE CONTROL then press ►.
Recording starts.
The REC indicator stops flashing and remains lit.

Notes for using Reverse Mode for recording

When recording with Reverse Mode on, the System automatically stops when it reaches the end of the reverse (◄) direction. To record on both sides of a tape, make sure that the recording direction for the tape inserted into Deck B is forward (►), and that the Tape Direction indicator is also forward (►), before you start recording.

To pause at any time during the recording process

Press REC PAUSE on the Remote Control. Then press ► on the Remote Control or REC START/STOP on the Unit to restart recording.

To stop at any time during the recording process

Press REC START/STOP on the Unit again, or press ■ on the Remote Control.

Recording AM Station to Tape

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In this case, press PROGRAM/RANDOM on the CD Player to eliminate the beats.

1. Set to AM station and start recording.

2. Press PROGRAM/RANDOM repeatedly until the beats are eliminated.
Each time you press the button, the indication on the display changes as follows:
→ CUT 2 → CUT 3 → CUT 1 → (back to the beginning)

CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have set in a program.

1. Press CD ►/II, then ■ STOP.

2. Prepare CDs. (See page 15.)
Check that the CD Player is not playing a CD.

3. Insert a blank or erasable cassette in Deck B.
- When you want to record on both sides of a tape, press REVERSE MODE to turn on Reverse Mode. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 24 "Notes for using Reverse Mode for recording".)

4. Press CD REC START.
"CD REC" appears on the display, the REC indicator lights up, and the System begins recording.
If the tape reaches its end while recording a song, the last song will be re-recorded at the beginning of the other side.
When the recording is finished, "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

To stop at any time during the recording process, press ■ STOP.

Note: When making Sleep Timer settings while doing CD Direct recording, set the time so that there is enough leeway to finish the recording before the power turns off. If the time is set to about the length of the CD, the power may turn off before recording finishes.

For CD Direct Recording using more than one disc, use a blank tape, If you use a prerecorded tape, prerecorded material may not be erased between newly-recorded tracks.

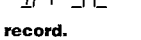
Auto Edit Recording

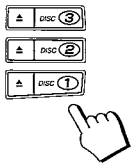
Using Auto Edit, you can record the CD tracks to fit the tape, so a selection is not cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape. Auto Edit programs the CD tracks in numerical order. To prevent the end of the last track on the front side from being cut off, the last track on the front side is selected to fit on the remaining tape length.

1. Press CD ►/II, then ■ STOP.

2. Prepare CDs. (See page 15.)
Check that the CD Player is not playing a CD.

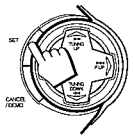
3. Press EDIT on the Unit.
"DISC-" appears on the display.



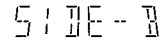


4. Press DISC (1 to 3) for the disc you want to record.
After "TAPE C - -", the optimum tape length for the disc appears on the display.

- You can select a different length of tape, depending on the actual size of the tape you are using, from eleven possibilities programed into the Unit: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Select the tape length that corresponds to the length of tape you are using, or the nearest length to it, by adjusting ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL.
  - If you select a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.



5. Press SET.
The tracks to be recorded on side B appear on the display.



- Each time you press the button, the tracks to be recorded on side A and side B appear on the display alternately.

6. Insert a blank or erasable cassette in Deck B.
When you want to record on both sides of a tape, press REVERSE MODE to turn Reverse mode on.

7. Press CD REC START .
The Unit plays the CD and starts recording. If the tape has not been rewound, the Unit rewinds the tape before starting to record the CD.

To stop at any time while recording, press ■ STOP or REC START/STOP on the Unit. If ■ STOP is pressed, the Cassette Deck will create a four-second blank space after the CD Player stops. If REC START/STOP is pressed, the CD Player and Cassette Deck will stop simultaneously. When ■ is pressed on the Remote Control, the stop time of the CD Player and Cassette Deck vary according to their mode (CD operation mode or Cassette Deck operation mode). If the Remote Control is in CD operation mode, the Cassette Deck will stop four second after the CD Player stops. If the Remote Control is in Cassette Deck operation mode, the CD Player and Cassette Deck will stop simultaneously.

To cancel Auto Edit, press PROGRAM/ RANDOM while the CD Player is stopped or press ⏏ for the disc number being recorded.

Note: When making Sleep timer settings while doing Auto Edit recording, set the time so that there is enough leeway to finish the recording before the power goes out. If the time is set to about the length of the CD, the power may go off before recording finishes.

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.
- ■ When dubbing tapes, make sure that the playback direction of Deck A and Deck B are the same.
- ■ When you record both sides of a tape, press REVERSE MODE to turn on the Reverse Mode.
- ■ It is preferable that the type of tape (Type I or Type II) you record from be the same as the type you record onto.

How to Use DUBBING

1. Press TAPE ◄ ►, then ■ STOP.

2. Insert the source cassette you want to copy from into Deck A for playback.
Insert the cassette so that it will be played in the forward (►) direction.

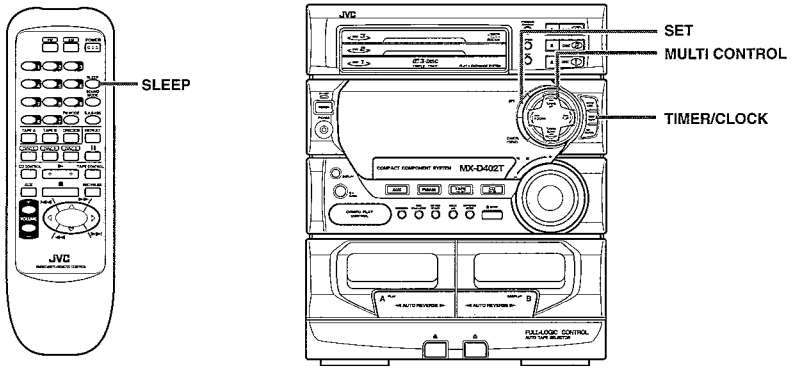
3. Insert the blank or erasable cassette you want to copy onto into Deck B for recording.
Insert the cassette so that it will be recorded in the forward (►) direction.

4. Press DUBBING.
Deck A and Deck B start simultaneously.

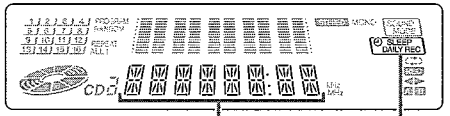
To stop dubbing, press ■ STOP.

- ■ When dubbing, you can hear Sound Mode effects through the speakers or headphones. However, the sound is dubbed without Sound Mode effects.

Using the Timer



Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The timers let you control recording and listening functions automatically.
Three types of timers are available:
- ■ **Daily Timer** — Use this timer to set wake up everyday to music from any source, instead of an alarm clock.
- ■ **Recording Timer** — Unattended recording of radio broadcasts. You can set the starting time and stopping time of the recording.
- ■ **Sleep Timer** — Fall asleep and have your Unit turn off automatically after a certain length of time.

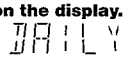
Note: When operating the Daily Timer and Recording Timer, always set the clock first. If the clock is not set, the Daily Timer and Recording Timer functions cannot be used. For details, refer to "Setting the Clock" on page 8.

Setting the Daily Timer

With this timer you can wake up to music from a CD, tape, your favorite radio program.
■ You can set the Daily Timer whether the Unit is on or off.

Procedure For Setting the Daily Timer

1. Press TIMER/CLOCK so that "DAILY" appears on the display.
The DAILY indicator flashes on the display.

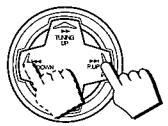


- Each time you press the button, the timer setting indication changes as follows:
  DAILY → ON TIME (flashes) → **REC → ON TIME** (flashes) → Clock setting → Canceled (current source) → (back to the beginning)

Note: If the clock has not been set, even if TIMER/CLOCK is pressed you cannot select the Daily Timer.

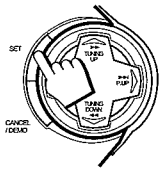
2. Press TIMER/CLOCK again.
After "ON TIME" flashes for 2 seconds, it switches to the on-time setting display.

Flashing



3. Set the time you want the Unit to turn on.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press ⏮ P. DOWN or ⏭ P. UP to adjust the minutes and press SET.

- After adjusting the minutes and pressing SET, "OFF TIME" flashes for two seconds and on-time setting is completed.

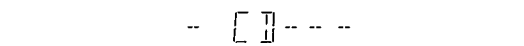


4. Set the time you want the Unit to turn off.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press ⏮ P. DOWN or ⏭ P. UP to adjust the minutes and press SET.

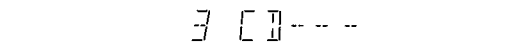
- When the off-time has been set, the indication on the display changes to the source selection.
- To select the source to be played, press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL until your choice is shown.

5. Select the source you want to listen to.
To use a CD as the source:

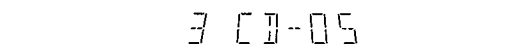
1. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "- CD - - -" flashes on the display and press SET.**



2. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly to select the CD disc number to be played and press SET.**
   If you press SET without selecting a disc, the last disc played by the Unit will be used.

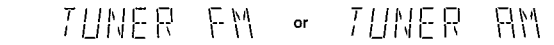


3. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly to select the CD track number to be played and press SET.**
   If you press SET without selecting a track, playback will start from the first track on the CD.



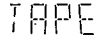
To use the Tuner as the source
(Possible only after presetting stations.):

1. **To listen to FM, press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "TUNER FM" flashes and press SET.**
   To listen to AM, press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "TUNER AM" flashes and press SET.

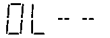


2. **Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly to select the station to be listened to as a preset channel and press SET.**

To use a Cassette Deck as the source:
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL repeatedly until "TAPE" flashes on the display and press SET.



6. Setting the volume level.
Press ⏮ P. DOWN or ⏭ P. UP on the MULTI CONTROL to adjust the volume.



VOL - 10: Sets the volume level to 10.
VOL - 15: Sets the volume level to 15.
VOL - 20: Sets the volume level to 20.
VOL - - -: Sets the volume to the last volume setting used.

7. Press SET.
The DAILY indicator stops flashing and remains lit. The on-time, off-time, playback source (including the disc number and track number if a CD source is selected), and volume level appears on the display. Turn the power off if you made the timer settings with the power turned on.

■ A few seconds before the on-time, the Unit automatically turns on the power. When the on-time comes, playback starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.
■ If a button is pressed when the Daily Timer is operating, playback continues but the timer is canceled.

Before turning off the Unit

■ If the source is a CD, make sure that there is a CD in the selected disc number.
■ If the source is a tape:
- The tape in the deck corresponding to the Deck indicator mark is played. Make sure that there is a tape in the selected Cassette Deck.
- Check that the tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to play both sides of the tape.

■ Select the Sound Mode if you want to listen using a Sound Mode effect.

To change the Daily Timer setting

To change the settings for the Daily Timer, repeat the setting procedure from the beginning.

Turning the Daily Timer On and Off

Once the Daily Timer has been set it will be activated at the same time every day until the setting is turned off.
To turn the Daily Timer off, press TIMER/CLOCK until "DAILY" appears on the display. Press CANCEL/DEMO, and the DAILY indicator goes out.
To turn the Daily Timer on again, press TIMER/CLOCK until "DAILY" appears on the display, then press SET. The Timer on-time, off-time, playback source (including the disc number and track number if a CD source is selected), and volume level appear on the display.

CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

Setting the Recording Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are home. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the Tuner and Cassette Deck to come on:

- You can set the Recording Timer whether the Unit is on or off.
- The tape you want to record onto must be in Deck B.

Procedure for Setting the Recording Timer

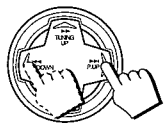
1. Press TIMER/CLOCK repeatedly until "REC" appears on the display.
The REC indicator flashes on the display.

- Each time you press the button, the timer setting indication changes as follows:
  DAILY → ON TIME (flashes) → **REC → ON TIME** (flashes) → Clock setting → Canceled (current source) → (back to the beginning)

Note: If the clock has not been set, even if TIMER/CLOCK is pressed you cannot select the Recording Timer.

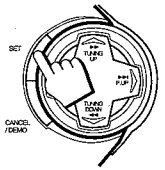
2. Press TIMER/CLOCK again.
After "ON TIME" flashes for 2 seconds, it switches to the time setting display.

3. Set the time you want the Unit to be turned on.
Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press I◄◄ P. DOWN or ►►I P. UP to adjust the minutes and press SET .



4. Set the time you want the Unit to be turned off.
Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to adjust the hours and press SET. Then press I◄◄ P. DOWN or ►►I P. UP to adjust the minutes and press SET.

5. Select the Recording band.
Press I◄◄ P. DOWN or ►►I P. UP on the MULTI CONTROL to select "TUNER FM" or "TUNER AM" and press SET.



6. Select the preset channel for the station to be recorded.
Press MULTI CONTROL I◄◄ P. DOWN or ►►I P. UP to select.

7. Press SET.
The REC indicator stops flashing and remains lit. The on-time, off-time, and Recording band ("TUNER FM" or "TUNER AM") appear on the display.
Turn the power off if you made the timer settings with the power turned on.

- A few seconds before the on-time for the recording, the Unit automatically turns on the power. When the on-time comes, recording starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.

Before the timer starts

- Check that tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to record on both sides of the tape.
- The volume level is automatically set to 0 when Recording Timer starts.

It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Deck B you don't want recorded over. Although this happens to almost everyone at one time or another, we hope it won't happen to you!

To change the Recording Timer setting

Repeat the setting procedure from the beginning.

Turning the Recording Timer On and Off

Once the Recording Timer has been used, the setting is maintained but the Timer is set to off.
To turn the Recording Timer off before the timer starts, press TIMER/CLOCK repeatedly until "REC" appears on the display, then press CANCEL/DEMO. The REC indicator goes out.
To record at the same time again, press TIMER/CLOCK repeatedly until "REC" appears on the display, then press SET. The on-time, off-time, and Recording band ("TUNER FM" or "TUNER AM") appear on the display.

CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

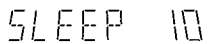
Setting the Sleep Timer

Use the Sleep Timer to turn the Unit off after a certain number of minutes when it is playing. By setting this timer, you can fall asleep to music and know your Unit will turn off by itself rather than play all night.

- You can only set the Sleep Timer when the Unit is on and a source is playing.

To set the SLEEP Timer, follow this procedure:

1. With the Unit on and a source playing, press SLEEP on the Remote Control.
"SLEEP" appears on the display.



2. Set the length of time you want the source to play before shutting off.

- Each time you press this button while the "SLEEP" indicator is flashing, it changes the number of minutes shown on the display in this sequence:

  → **10 → 20 → 30 → 60 → 90 → 120** → Canceled → (back to the beginning)

When the number of minutes you want shows on the display, just wait 5 seconds until the indicator stops flashing, and remains lit.
The Unit is now set to turn off after the number of minutes you set.

To change the Sleep Timer setting

Press SLEEP until the number of minutes you want appears on the display.

To cancel the Sleep Timer setting

Press SLEEP until the SLEEP indicator goes out on the display.
Turning off the Unit also cancels the Sleep Timer.

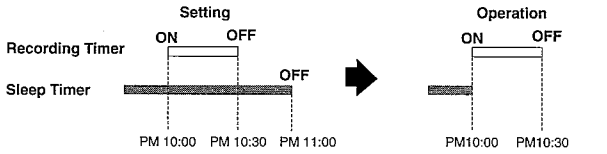
Timer Priority

Since each timer can be set independently, you may wonder what happens if the settings overlap. Here are the priorities for each timer:

■ The Recording Timer always has priority. This means that:
- If another timer is set to come on during a time when the Recording Timer is operating, the other timer just will not come on at all, so you will always get the entire program on tape.
- If the Recording Timer is set to come on while another timer is operating, the other timer will shut off 10 seconds before the Recording Timer is set to turn on, and the Recording Timer will then take over.

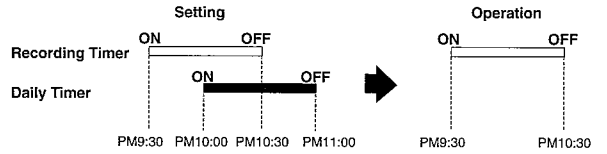
■ If the Sleep Timer is set while the Daily Timer is operating, the Sleep Timer will take over. However, if the Daily Timer is set to come while the Sleep Timer is operating, the Daily Timer will take over.

Example 1



The Recording Timer has priority.

Example 2



The Recording Timer has priority.

Care and Maintenance

Compact Discs

Handle your compact discs, cassette tapes, and Cassette Deck carefully, and they will last a long time.

- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.

- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.

- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray thinner, benzine, etc.) to clean a CD.

Moisture Condensation

Moisture may condense on the lens inside the Unit in the following cases:
- After starting the heating in the room.
- In a damp room.
- If the Unit is brought directly from a cold to a warm place.

Should this occur, the Unit may malfunction. In this case, leave the Unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

General Notes

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.
- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the Cassette Deck's tape doors and the CD trays closed when not in use.

Cassette Tapes

- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.

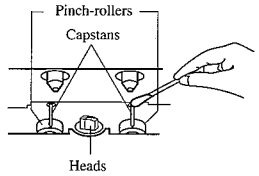
- Do not touch the tape surface.

- Do not store the tape:
  - In dusty places
  - In direct sunlight or heat
  - In moist areas
  - On a TV or speaker
  - Near a magnet

Cassette Deck

- If the heads, capstans, and pinch-rollers of the Cassette Deck become dirty, the following will occur:
  - Loss of sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficulty recording

- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, the Unit will produce noise or lose high frequencies.

- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your System, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	Action
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 4 - 5.)
Unable to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Poor radio reception	• The antenna is disconnected. • The AM Loop Antenna is too close to the Unit. • The FM Wire Antenna is not properly extended and positioned.	• Reconnect the antenna securely. • Change the position and direction of the AM Loop Antenna. • Extend FM Wire Antenna to the best reception position.
The CD skips.	The CD is dirty or scratched.	Clean or replace the CD.
Unable to operate the Remote Control.	• The path between the Remote Control and the sensor on the Unit is blocked. • The batteries have lost their charge.	• Remove the obstruction. • Replace the batteries.
The CD tray cannot be opened.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built-in microprocessor has malfunctioned due to external electrical interference.	Unplug the Unit then plug it back in.
The cassette door cannot be opened.	During tape playing, the power cord was unplugged.	Plug in the power cord, press POWER, and then press ⏏.

Specifications

Amplifier Section

Output Power **80 watts per channel, min. RMS at 6 ohms at 1 kHz, with no more than 3% total harmonic distortion.**

Input Sensitivity/Impedance (1 kHz)
AUX 300 mV/50 kohms
Speaker terminals 6 - 16 ohms

Cassette Deck Section

Frequency Response
Type II (CrO_2) : 50 - 14,000 Hz
Type I (NORMAL) : 50 - 14,000 Hz
Wow And Flutter 0.15% (WRMS)

CD Automatic Changer Section

CD Capacity 3 discs
Dynamic Range 85 dB
Signal-To-Noise Ratio 90 dB
Wow And Flutter Unmeasurable

Tuner Section

FM Tuner
Tuning Range 87.5 - 108.0 MHz
AM Tuner
Tuning Range 530 - 1,710 kHz

Dimensions 265 × 315 × 340 mm (W/H/D)
(10-7/16 × 12-7/16 × 13-7/16 inches)
Mass 7.8 kg (17.2 lbs)

Speaker Specifications
SP-D402

Type 3-way, 3-speaker bass-reflex type
Speaker
Tweeter 2 cm (13/16 inches) dome × 1
Midrange 5 cm (2 inches) cone × 1
Woofer 16 cm (6-5/16 inches) cone × 1
Power Handling Capacity 80 W
Impedance 6 ohms
Frequency Range 46 - 20,000 Hz
Sound Pressure Level 87 dB/w • m

Dimensions 215 × 315 × 271 mm (W/H/D)
(8-1/2 × 12-7/16 × 10-11/16 inches)
Mass 3.3 kg (7.3 lbs)

Accessories

AM Loop Antenna (1)
Remote Control (1)
Batteries R6P (SUM-3)/AA (15F) (2)
FM Wire Antenna (1)

Power Specifications

Power Requirements AC 120 V∿, 60 Hz
Power Consumption 115 watts
12 watts (in standby mode)

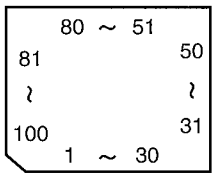
Design and specifications are subject to change without notice.

-MEMO-

Description of Major ICs

■UPD780206GF-039 (IC801) : System control micon

1.Terminal Layout

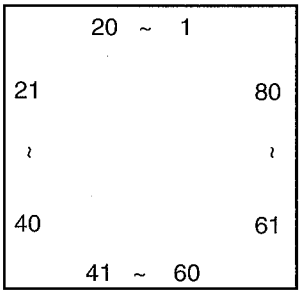


2.Pin Function

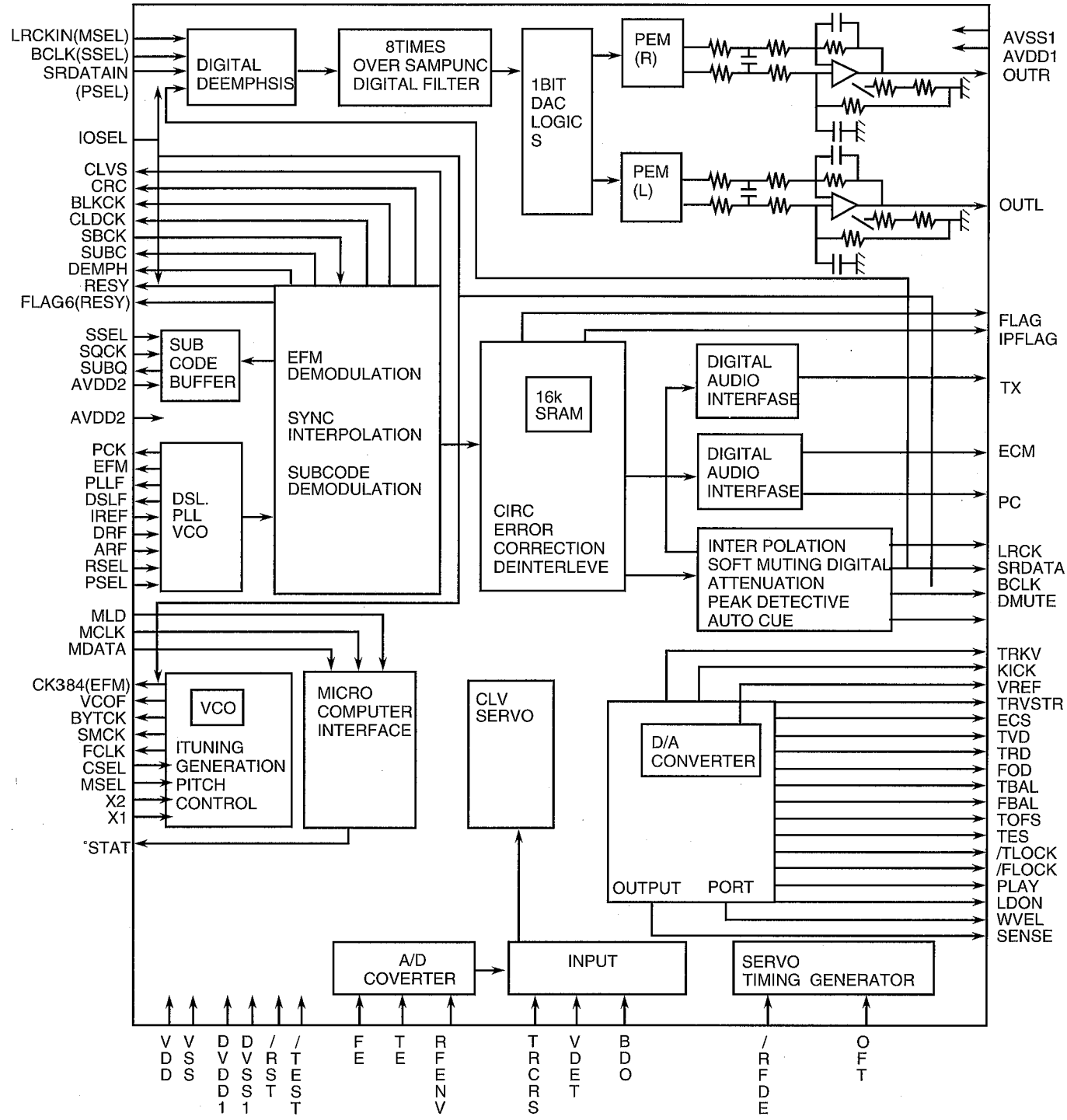
No.	Symbol	I/O	Function	No.	Symbol	I/O	Function
1	VDD	-	Power supply.	33	SPIDTI	I	SPI DATA analog signal input.
2	SPICSB	O	SPI IC chip select signal output.	34	AVDD	-	Power supply for AD converter.
3	SPIA	O	SPI IC control-A.	35	AVREF	-	A/D REF voltage.
4	SPIB	O	SPI IC control-B.	36	$\overline{\text{REMIN}}$	I	Remote control signal input.
5	PHOTOA	I	Tape A mechanism running detection.	37	$\overline{\text{MPX}}$	I	MPX IN (Stereo INDI.)
6	PHOTOB	I	Tape B mechanism running detection.	38	$\overline{\text{OSDCK/RDCK}}$	I/O	OSD clock output or RDS clock
7	MSI	I	Music scan input.				input.
8	SPIC	O	SPI IC control-C	39	$\overline{\text{PRT}}$	I	Protector input.
9	BEAT	O	Beat cut output (TUNER).	40	VSS	-	Connect to GND.
10	$\overline{\text{RESET}}$	I	System reset signal.	41	$\overline{\text{INH}}$	I	Inhibit signal input (Back up).
11	X2	O	Main clock 4.19MHz.	42	HPHONE	I	Headphone input.
12	X1	I	Main clock 4.19MHz.	43	OSDDA/RSDA	I/O	OSD data output or RDS data
13		-	Non connect.				input.
14	XT2	-	Sub clock 32.76kHz.	44	PROSACK	O	Prologic/SA Bass/EXT IC clock.
15	XT1	-	Sub clock 32.76kHz.	45	PROSADA	O	Prologic/SA Bass/EXT IC data.
16	VDD	-	Power supply.	46	VDD	-	Power supply.
17	CK	O	Serial clock signal output to IC304	47	FVOLDA	O	Front VOL data output to IC401.
			IC303,IC802,IC2.	48	VOLCK	O	Clock signal output to IC401.
18	DATA	I/O	Serial data signal output to IC304	49	RVOLDA	O	Rear VOL data output.
			IC303,IC802,IC2.	50	OSDOFF	I	OSD OFF.
19	POUT	O	Power ON/Standby.	51	SLCCE	O	Chipenable signal output to
20	VC3RESET	O	Reset signal output to IC251.				IC303,IC304.
21	MRDY	I	Ready signal from IC251.	52	TUCE	O	Chip enable signal to Tuner (IC2).
22	KCLK	I	Clock signal from IC251.	53	PROCE	O	Chip enable signal to prologic.
23	KCMND	O	Command to IC251.	54	SABCE	O	Chip enable signal to SA Bass.
24	MSTAT	I	VC3 MSTAT.	55	OSDCE	O	Chip enable signal to OSD.
25	AVSS	-	Connect to GND.	56	DSPCE	O	Chip enable signal to DSP.
26	KEY1	I	Key matrix signal input.	57	EXTCE	O	Chip enable signal to EXT(IC802).
27	KEY2	I	Key matrix signal input.	58	SMUTE	O	System mute output.
28	KEY3	I	Key matrix signal input.	59	VOLU+	I	Rotary encoder VOL +
29	KEY4	I	Key matrix signal input.	60	VOLU-	I	Rotary encoder VOL -
30	SLCKEY1	I	SLC Key input	61~78	S1~S18	O	FL segmant control signal.
31	SLCKEY2	I	SLC Key input	79	VLOAD	-	Power supply.
32	SLCKEY3	I	SLC Key input	80~91	S19~S30	O	FL segment control signal.
				92~100	G9~G1	O	FL grid control signal.

■MN35510(IC651):DIGITAL SERVO&DIGITAL SIGNAL PROCESSER

1. Terminal Layout



2.Block Diagram



3. Description

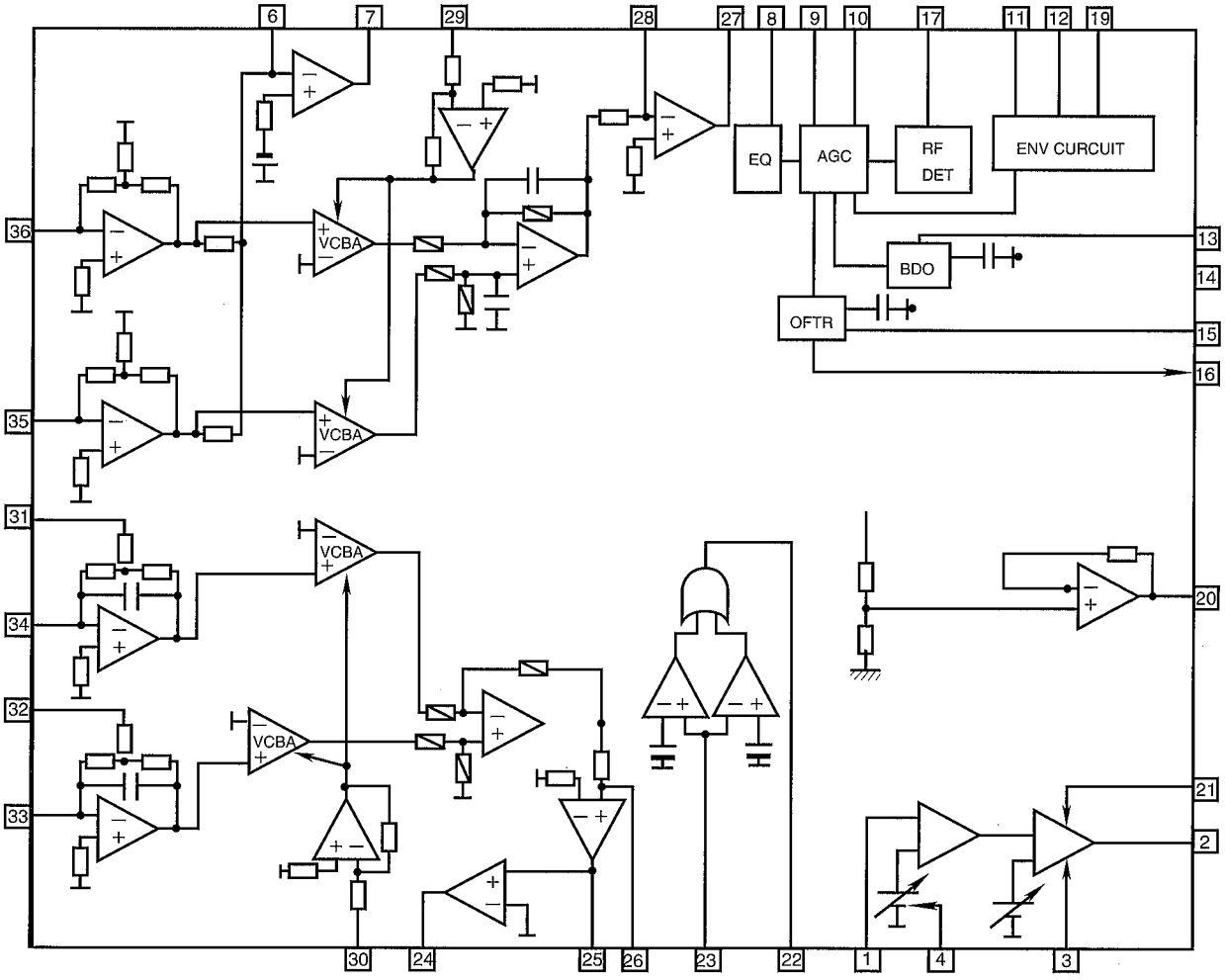
Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	—	Not used
3	SRDATA	O	Not used	43	WVEL	—	Not used
4	DVDD1	—	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	—	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μcom command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	μcom command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	μcom command load signal input	49	VCOF	—	Not used
10	SENSE	O	Sence signal output	50	AVDD2	—	Power supply(Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	—	Connected to GND(Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	—	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	—	Not used
14	SQCK	I	Outside clock for sub-code Q resister input	54	PDO	—	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	—	Not used
16	DMUTE	—	Connected to GND	56	SBCK	—	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	—	Connected to GND(for X'tal oscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	—	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	—	Not used	60	VDD	—	Power supply(for X'tal cscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	—	Not used
22	TVD	O	Traverse drive output	62	CLDCK	—	Not used
23	PC	—	Not used	63	FLAG	—	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	—	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	—	Not used
26	KICK	O	Kick pulse output	66	CLVS	—	Not used
27	TRD	O	Tracking drive output	67	CRC	—	Not used
28	FOD	O	Focus drive output	68	DEMPH		Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	—	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	—	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	—	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	—	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	—	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	—	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	—	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	—	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	—	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	—	Pull up

■AN8806SB(IC601):RF&Servo AMP

1.Treminal Layout

PD	1	36	PDAC
LD	2	35	PDBD
LDON	3	34	PDF
LDP	4	33	PDE
VCC	5	32	PDER
RF-	6	31	PDFR
RF OUT	7	30	TBAL
RF IN	8	29	FBAL
C.AGC	9	28	EF-
ARF	10	27	EF OUT
C.ENV	11	26	TE-
C.EA	12	25	TE OUT
CS BDO	13	24	CROSS
BDO	14	23	TE BPF
CS BRT	15	22	VDET
OFTR	16	21	LD OFF
/NRFDET	17	20	VREF
GND	18	19	ENV

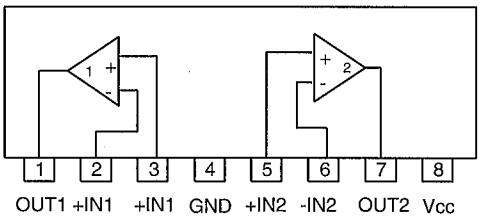
2.Block Diagram



3. Functions

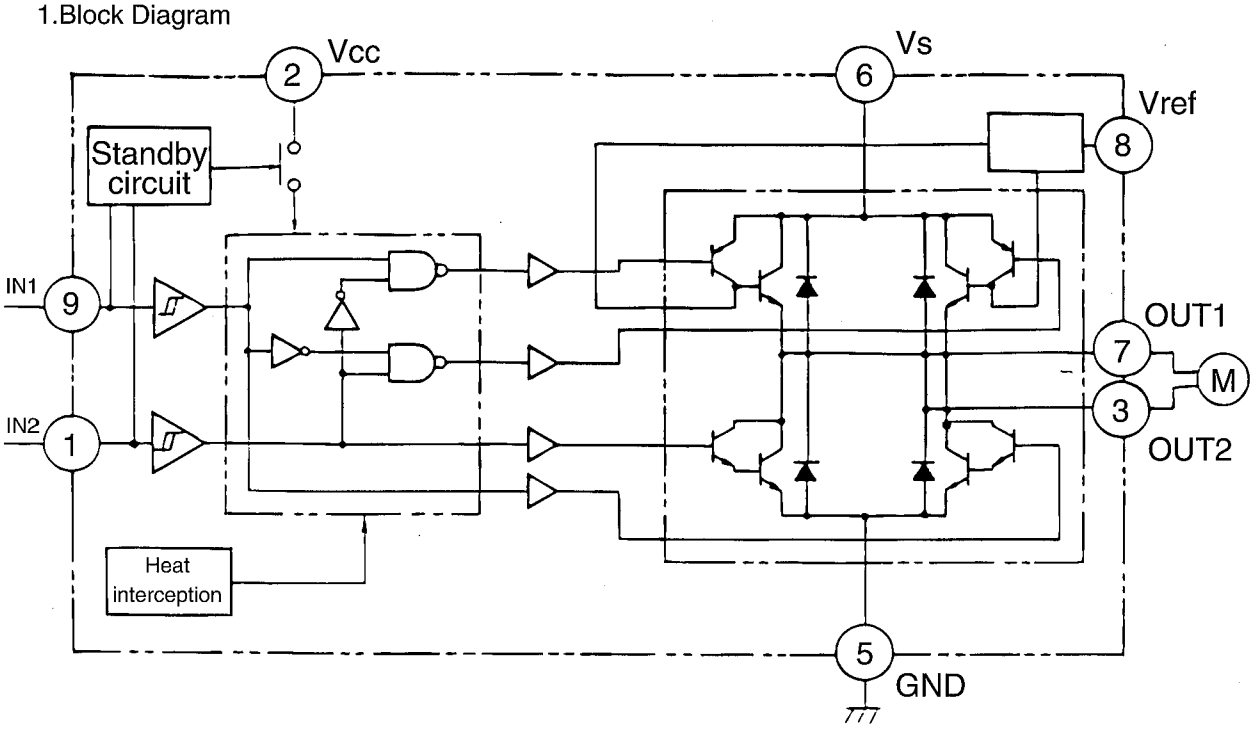
Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ BA15218N(IC202) Dual OpeAmp



■TA8409S(IC851.852):CD Changer Motor Driver

1.Block Diagram

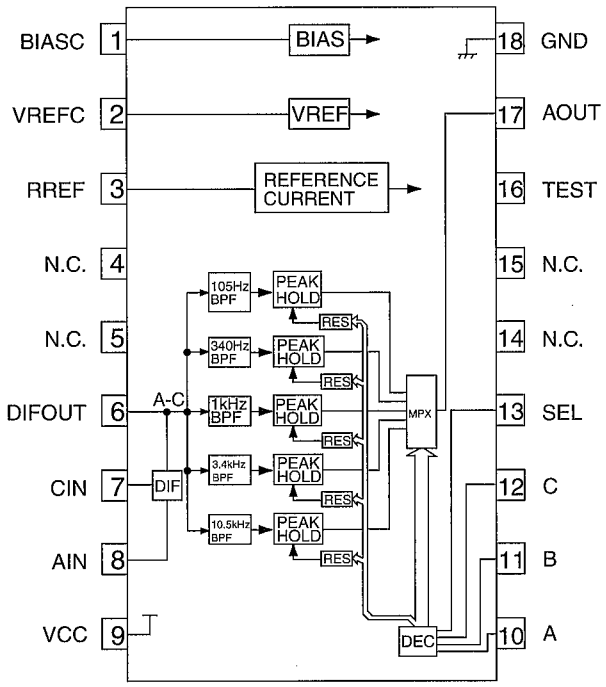


2.Function

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	MOTOR
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

■BA3835S (IC542):SPI BPF

1.Block Diagrams

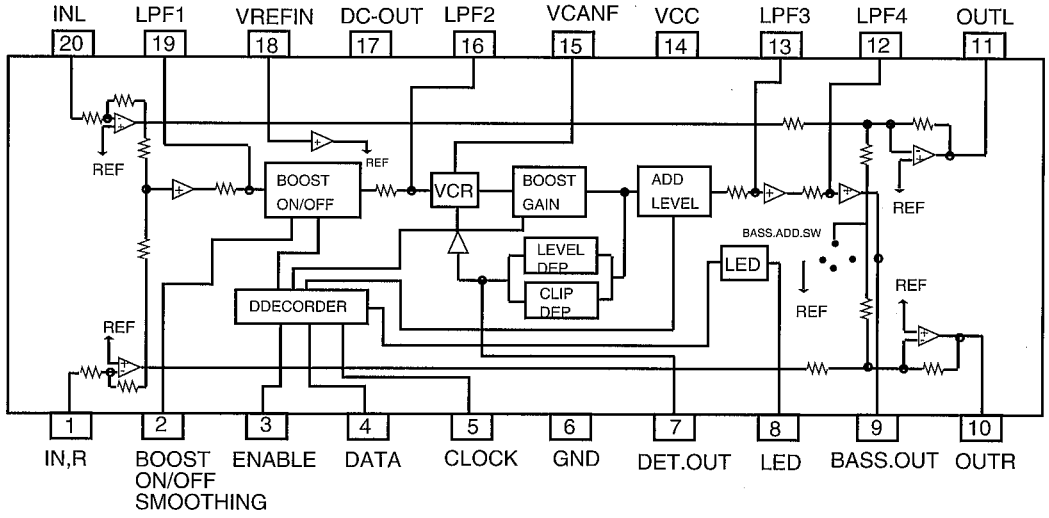


2.Pin Function

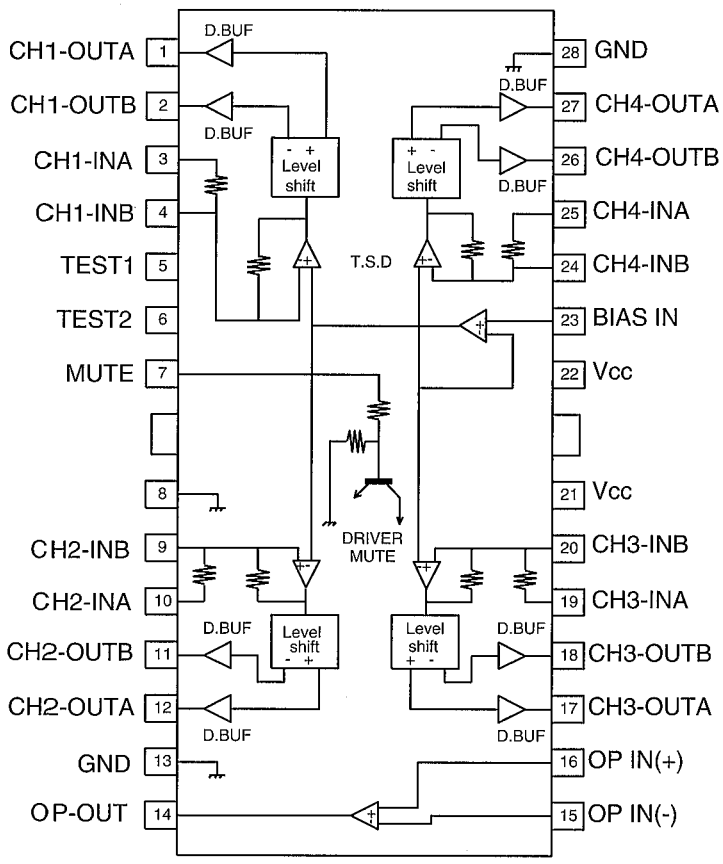
No.	Symbol	I/O	Function
1	BIASC	-	Decoupling condenser connection terminal.
2	VREFC	-	Decoupling condenser connection terminal.
3	RREF	-	Reference resistance connection terminal.
4	NC	-	Non connect.
5	NC	-	Connected to GND of audio system through a condenser.
6	DIF OUT	-	Non connect.
7	CIN	-	Connected to GND of audio system through a condenser.
8	AIN	I	Inputs the audio signal through a condenser.
9	VCC	-	Power supply terminal.
10	SPI-A	O	Output selection control terminal.
11	SPI-B	O	Output selection control terminal.
12	SPI-C	O	Output selection control terminal.
13	SPICSB	O	Output selection control terminal.
14	NC	-	Non connect.
15	NC	-	Non connect.
16	TEST	-	Connected to GND upon normal use.
17	AOUT	O	Multi-plexor output terminal.
18	GND	-	Connect to GND.

■LA2650 (IC406)

1.Terminal Layout/Block diagram

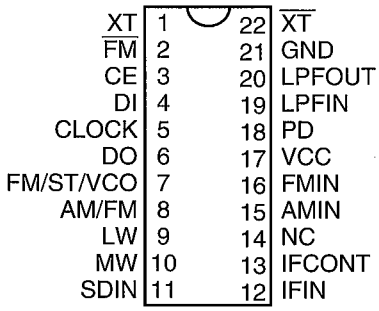


■BA6897FP(IC801) 4channel driver

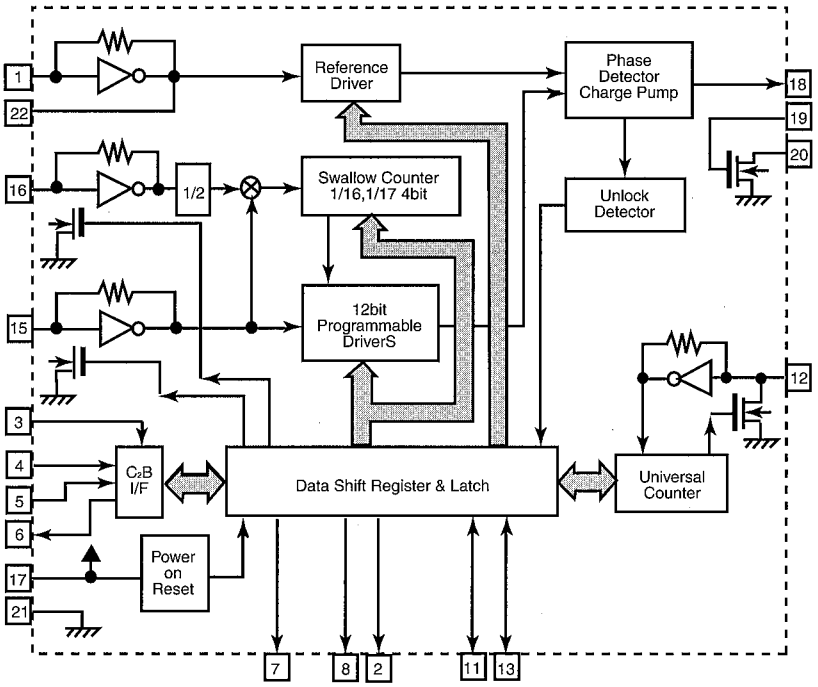


■LC72136N(IC2):PLL Frequency synthesizer L S I

1. Layout



2. Block

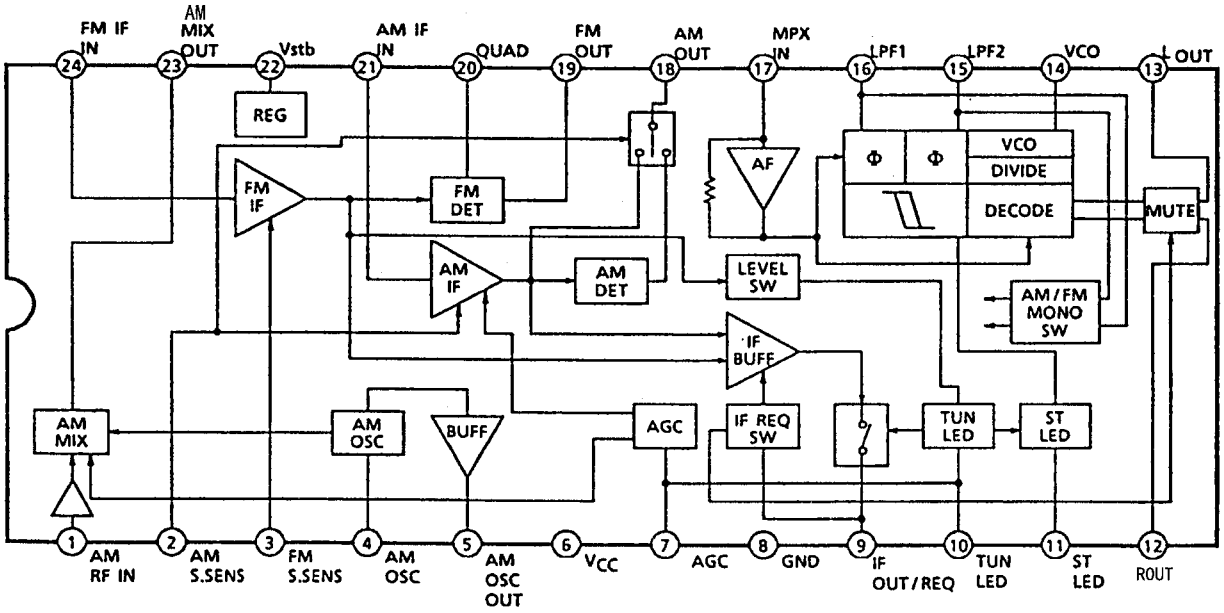


3. Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75KHz)	12	IFIN	I	IF counter signal input
2	$\overline{FM}$	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14	NC	-	Not use
4	DI	I	Input for receive the sirisl data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power suplly(VDD=4.5~5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	$\overline{AM}$/FM	O	Not use	19	LPFIN	I	Input for active lowpassfilter of PLL
9	LW	-	Not use	20	LPFOUT	O	Output for active lowpassfilter of PLL
10	MW	-	Not use	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	$\overline{XT}$	O	X'tal oscillator(75KHz)

■TA2057N(IC1) FM/AM IF AMP & Detector

1.Block Diagrams

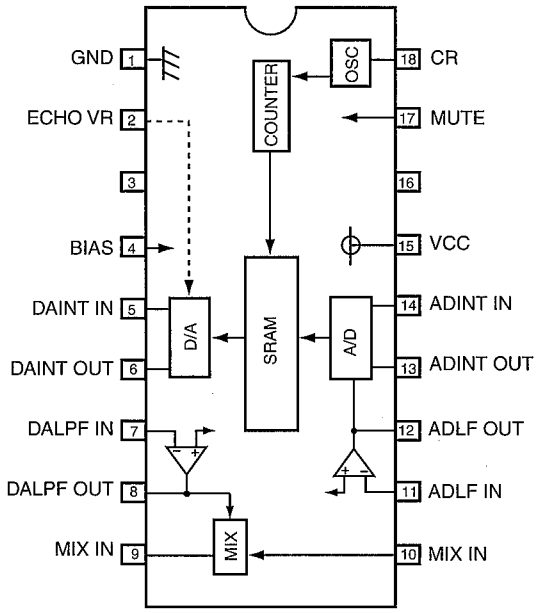


2.Pin Function

Pin No.	I/O	Symbol	Function	Pin No.	I/O	Symbol	Function
1	I	AM RF	AMRF signal input	13	O	Lch OUT	Output Lch
2		AM S.SENS		14	O	VCO	Voltage controlled terminal
3		FM S.SENS		15	O	LPF2	When voltage of terminal is MONO at "H" and ST at "L"
4	-	AM OSC	AM local oscillation circuit				
5	O	AM OSC OUT	AM local oscillation signal output	16	O	LPF1	When voltage of terminal is AM at "H" and FM at "L"
6	-	VCC	Power supply				
7	I	AGC	AGC voltage input terminal	17	I	MPX IN	Multi plex signal input
8	-	GND	Connect to GND	18	O	AM OUT	AM detection signal output
9	O	IF OUT	IF REQ signal output to IC2	19	O	FM OUT	FM detection signal output
10	O	TU IND	Indicator drive output when tuning	20	I	FM QUAD	Bypass to FMIF
11	O	ST IND	Stereo indicator output "H"mono . "L"stereo	21	I	AM IF IN	Input of AMIF signal
				22	-	Vst	Fixed voltage output terminal
12	O	Rch OUT	Output Rch	23	O	AM MIX OUT	Output terminal for AM mixer
				24	I	FM IF IN	Input of FMIF signal

■BU9253AS(IC201):Echo Mixing

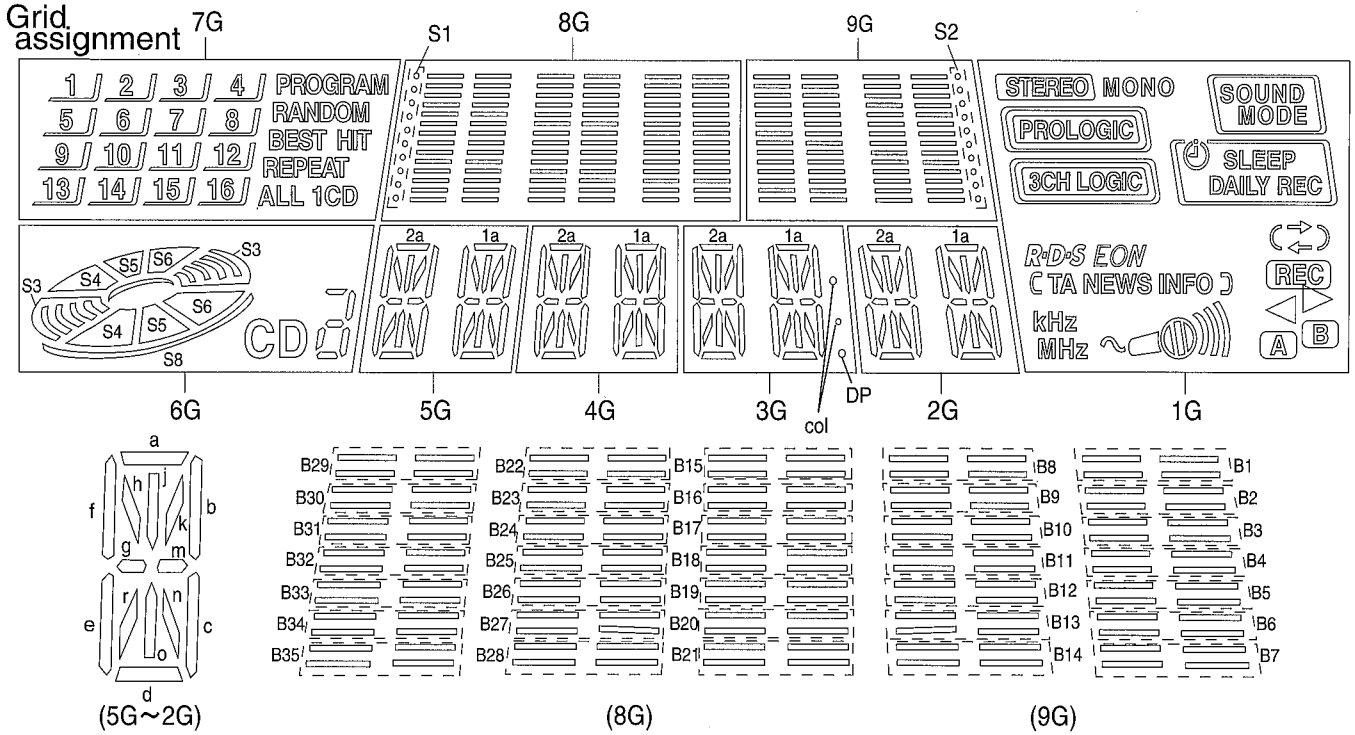
1. Block Diagram



2. Pin Function

Pin No.	Symbol	I/O	Function
1	GND	-	Ground pin
2	ECHO VR Echo	I	Echo level control
3	NC1	-	Non connection
4	BIAS	-	Analog part DC bias
5	DAINT IN	I	DA side Integrator input
6	DAINT OUT	O	DA side integrator output
7	DALPF IN	I	DA side LPF input
8	DALPF OUT	O	DA side LPF output
9	MIX OUT	O	Mix AMP input pin for original tone
10	MIX IN	I	Mix AMP input pin for original tone
11	ADLPF IN	I	AD side LPF input
12	ADLPF OUT	O	AD side LPF output
13	ADINT OUT	O	AD side Integrator output
14	ADINT IN	I	AD side integrator input
15	VCC	-	VCC pin
16	NC2	-	Non connection
17	MUTE	I	Mute control
18	CR	-	CR pin for Oscillator

QLF0040-001(FL801):FL DISPLAY TUBE



Anode connection

	9G	8G	7G	6G	5G,4G	3G	2G	1G
P1	B1	B15	1	S3	2a	2a	2a	STEREO
P2	B2	B16	2	S4	2h	2h	2h	PROLOGIC
P3	B3	B17	3	S5	2j	2j	2j	
P4	B4	B18	4	S6	2k	2k	2k	
P5	B5	B19	5	S7	2b	2b	2b	3CH LOGIC
P6	B6	B20	6	S8	2f	2f	2f	REC
P7	B7	B21	7	CD	2m	2m	2m	
P8	-	-	8	d	2g	2g	2g	SLEEP
P9	-	B29	9	e	2c	2c	2c	DAILY
P10	-	B30	10	c	2e	2e	2e	SOUND MODE
P11	-	B31	11	g	2r	2r	2r	
P12	-	B32	12	b	2p	2p	2p	
P13	-	B33	RANDOM	a	2n	2n	2n	
P14	-	B34	BEST HIT	-	2d	2d	2d	kHz
P15	-	B35	REPEAT	-	-	col	-	MHz

	9G	8G	7G	6G	5G,4G	3G	2G	1G
P16	-	-	-	-	-	Dp	-	REC
P17	B8	B22	13	-	1a	1a	1a	TA
P18	B9	B23	14	-	1h	1h	1h	R·D·S
P19	B10	B24	15	-	1j	1j	1j	EON
P20	B11	B25	16	-	1k	1k	1k	NEWS
P21	B12	B26	ALL	-	1b	1b	1b	INFO
P22	B13	B27	1	-	1f	1f	1f	((TA)
P23	B14	B28	CD	-	1m	1m	1m	(INFO))
P24	S2	S1	PROGRAM	-	1g	1g	1g	( )
P25	-	-	-	-	1c	1c	1c	⇒ ⇐
P26	-	-	-	-	1e	1e	1e	▷
P27	-	-	-	-	1r	1r	1r	◁
P28	-	-	-	-	1p	1p	1p	A
P29	-	-	-	-	1n	1n	1n	B
P30	-	-	-	-	1d	1d	1d	MONO

Pin connection

PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
CONNECTION	F1	F1	NP	NP	NX	NX	NX	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	1G	2G	3G	4G	5G	6G	7G	8G	9G	NX	NX	NP	NP	F2	F2

NOTE 1) F1,F2 Filament
2) NP No pin
3) NX No extend pin
4) DL Datum Line
5) 1G~9G Grid
6) Field of vision is a minimum of 33.8° from the upper side, 23.9° from the lower side

Disassembly Procedures

■Removal of the Metal Cover

1.Remove the six screws A fastening the metal cover to the rear panel of the main unit.
2.Remove the two screws B fastening the metal cover to the side panel of the main unit.
3.Spread both sides of the metal cover outward and remove from the back panel by lifting upward.

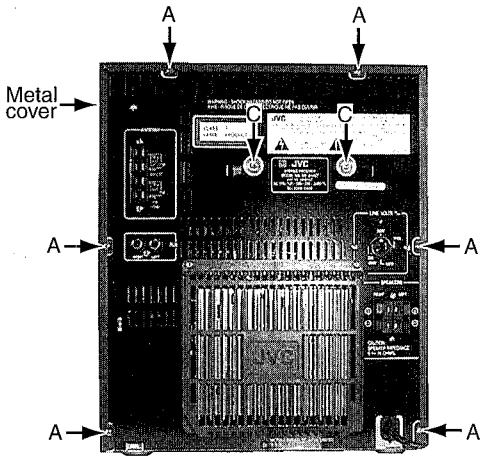


Fig 1

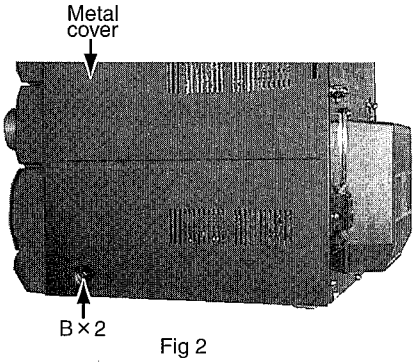


Fig 2

■Removal of the CD Changer Mechanism Assembly

1.Remove the metal cover
2.Remove the two screws C fastening the CD changer mechanism assembly to the rear panel of the main unit.
3.Remove the two screws D fastening the CD changer mechanism assembly to the top panel of the main unit.
4.Disconnect the card wire connected to the CD changer mechanism assembly from connector CN410 on the main amplifier board on the right side of the main unit.
5.Expand a rear panel outside,back of CD changer mechanism is lifted and detached.

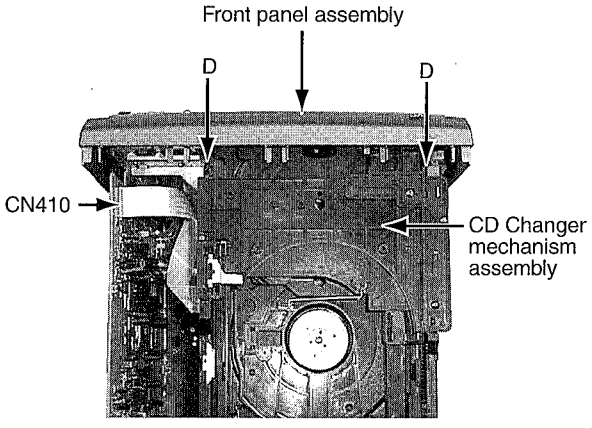


Fig 3

■Removal of the Front Panel Assembly

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.Remove the four screws E fastening the front panel assembly to the bottom of the main unit.
4.Use a screwdriver,etc..,to disengage clips ⓐ and ⓑ from the side panels of the main unit.
5.Disconnect the wires connected to the front panel assembly from connectors CN411.CN412.CN413 on the main amplifier board.
6.Disconnect the wires CN915 and CN007 on the power amplifier board.
7.Disconnect connector CN414 on the Main P.C.Board (Only U,A type)
8.Remove the plastic rivet ⓒ fastening the main P.C.Board and front panel assembly.
9.Remove the front panel assembly.

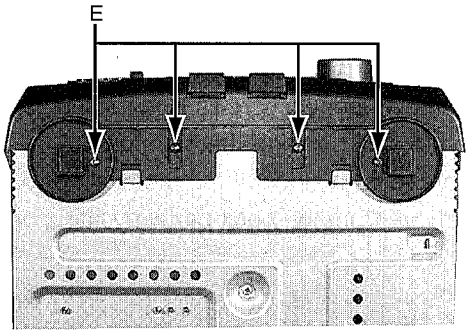


Fig 4

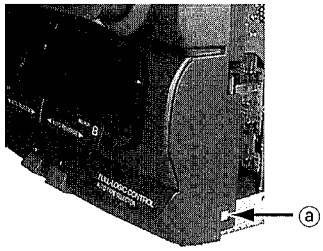


Fig 5

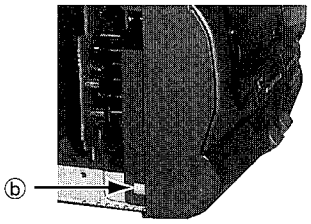


Fig 6

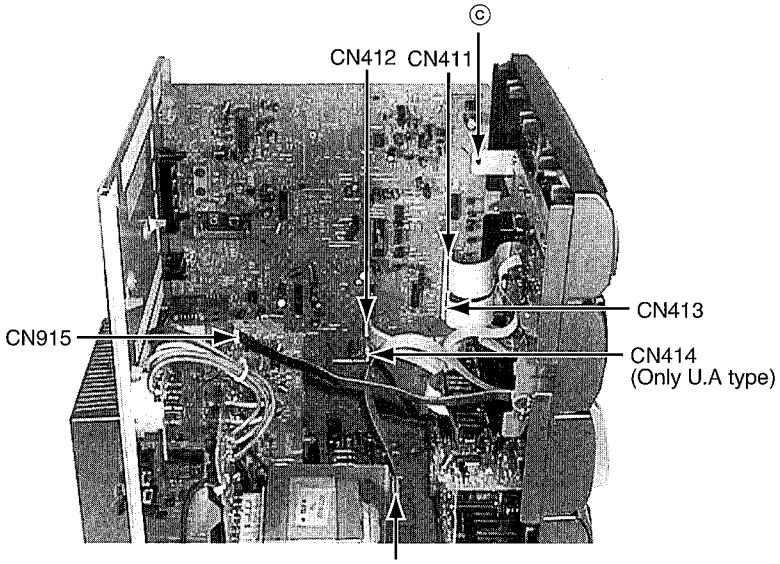


Fig 7

■Removal of the Rear Panel Assembly

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.Remove seven screws F fastening the rear panel.
4.Remove two screws G fastening the rear cover.
5.Remove two screws H fastening the voltage selector of the rear panel. (Only U.A type)
6.Remove three screws I fastening the heat sink of the rear panel.
7.Use a screwdriver,etc.,to disengage the two engagements bottom chassis clips ⓓ and ⓔ from the bottom part of the side panels of the rear panel assembly.

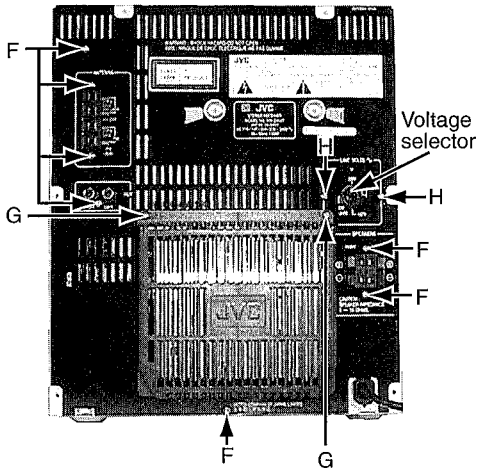


Fig 8

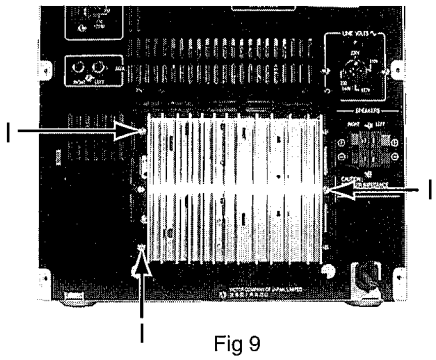


Fig 9

■Removal of the Main Amplifier Board

1.Remove the rear panel.
2.Remove one screw J fastening the main amplifire board and bottom chassis to the side panel of the main unit.
3.Disconnect the main amplifier board CN415 and CN416 from the power amplifier board. (See Fig 12)

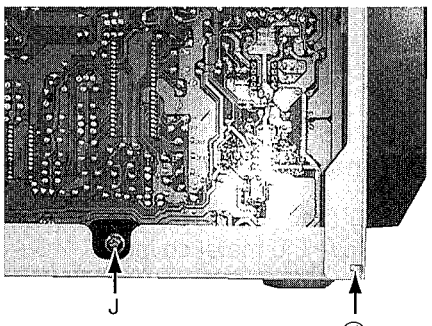


Fig 10

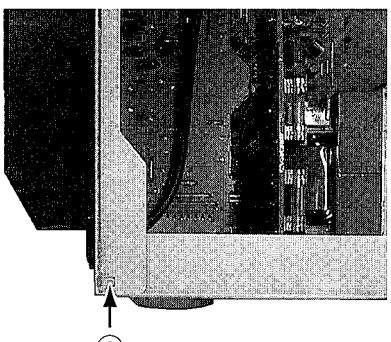


Fig 11

■Remove of the Power Transformer

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.Remove the rear panel .
4.Remove the four screws K fastening the power transformer.
5.Disconnect the connector CN111 and CN009 on the power amplifier board.

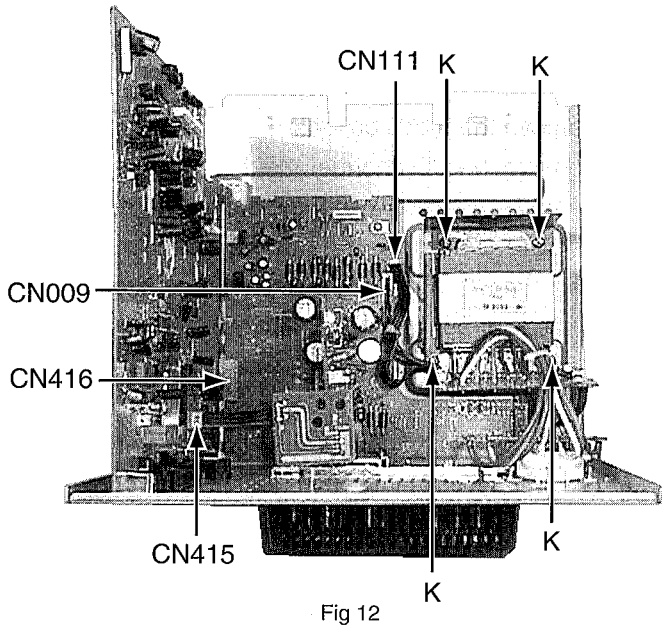


Fig 12

■Removal of the Front Panel

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.Remove the front panel assembly.
4.Remove the volume knob and nut from the front panel assembly.
5.Remove the six screws L fastening the stay bracket inside the front panel assembly.
6.Remove the eleven screws M fastening the system CPU board.
7.Disconnect the card wires protruding from connector CN803 on the system CPU board.

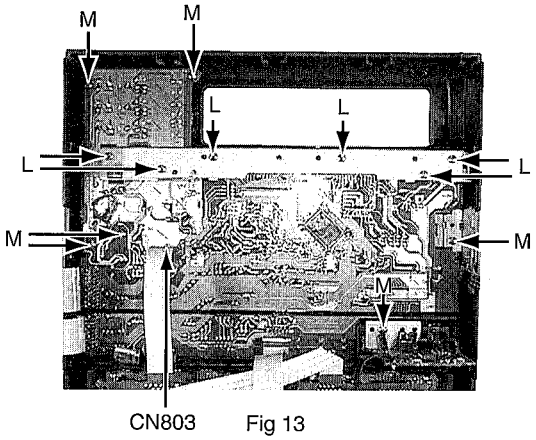


Fig 13

■Removal of the Cassette Mechanism Assembly.

1.Remove the metal cover.
2.Remove the CD traverse mechanism assembly.
3.Remove the front panel assembly.
4.Remove the eight screws N fastening the cassette mechanism assembly to the inside of the front panel assembly.
5.Disconnect the card wires from connectors CN305 and CN306 on the head amplifier & mechanism control board.

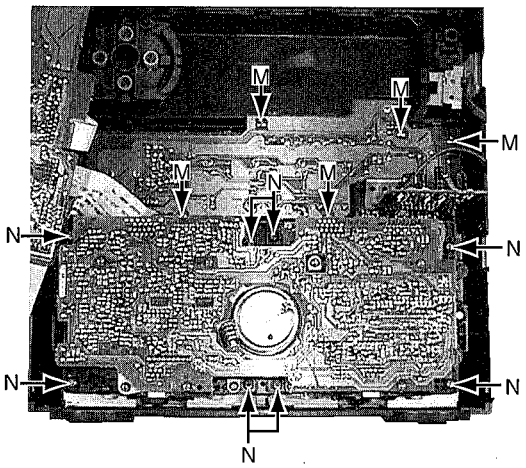


Fig 14

≪CD Changer Mechanism Type:VC3 Section≫

■Removing the CD Servo control board (See Fig.1)

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.From bottom side the CD changer mechanism assembly, remove the two screws 1 retaining the CD servo control board.
4.Absorb the four soldered positions "M" of the right and left motors with a soldering absorber.
5.Pull out the earth wire on the CD changer mechanism assembly.
6.The two screws A is removed and C.B.holder is detached.
7.Disconnect the connector CN854 on the CD servo control board.
8.Disconnect the card wire CN601 and the connector CN801 on the CD servo control board.

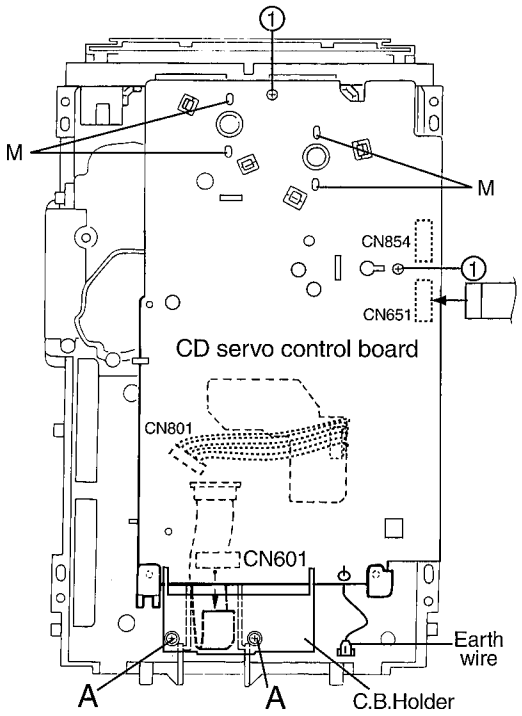


Fig.1

■Removing the CD tray assembly (See Fig.2~4)

1. Remove the front panel assembly.
2. Remove the CD changer mechanism assembly.
3. Remove the CD Servo control board.
4. From the T.bracket section "B" and clamper base section "C" , remove both of the edges fixing the rod(See Fig.2 and 3).
5. Remove the screw 2 retaining the Disc stopper (See Fig.3).
6. Remove the three screws 3 retaining the T.bracket (See Fig.3).
7. Remove the screws 4 retaining the clamper assembly (See Fig.3).
8. From the left side face of the chassis assembly, remove the one screw 5 retaining both of the return spring and lock lever(See Fig. 4).
9. By removing the pawl at the section "D" fixing the return spring, dismount the return spring(See Fig.4).
10. Remove the three lock levers(See Fig.4).

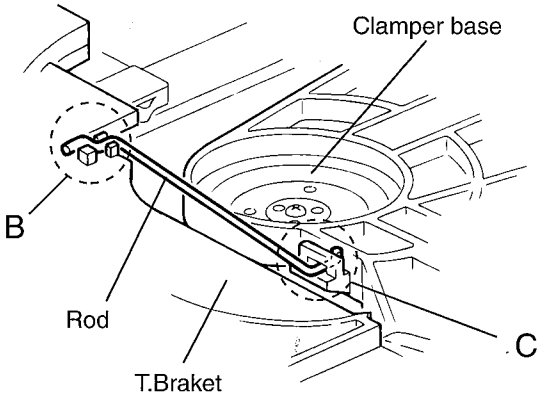


Fig.2

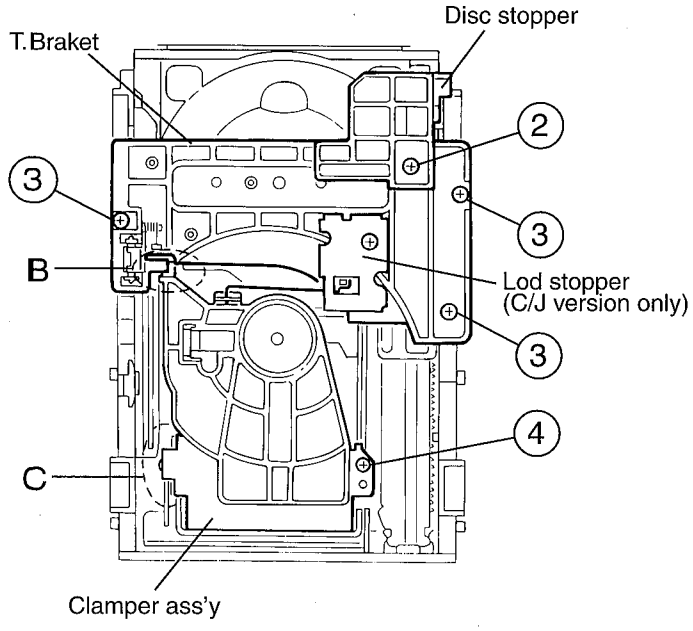


Fig.3

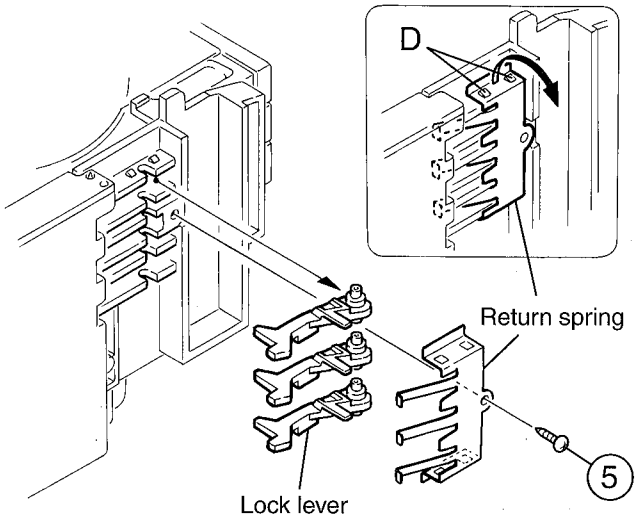


Fig.4

11. Check whether the lifter unit stopper has been caught into the hole at the section "E" of CD tray assembly as shown in Fig.5.
12. Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the CD changer mechanism assembly.

[Caution] In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.

13. Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section "E" of CD tray assembly(See Fig.8).
14. Pull out all of the three stages of CD tray assembly in the arrow direction "F" until these stages stop (See Fig.6).
15. At the position where the CD tray assembly has stopped, pull out the CD tray assembly while pressing the two pawls "G and G" on the back side of CD tray assembly(See Fig.9). In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.

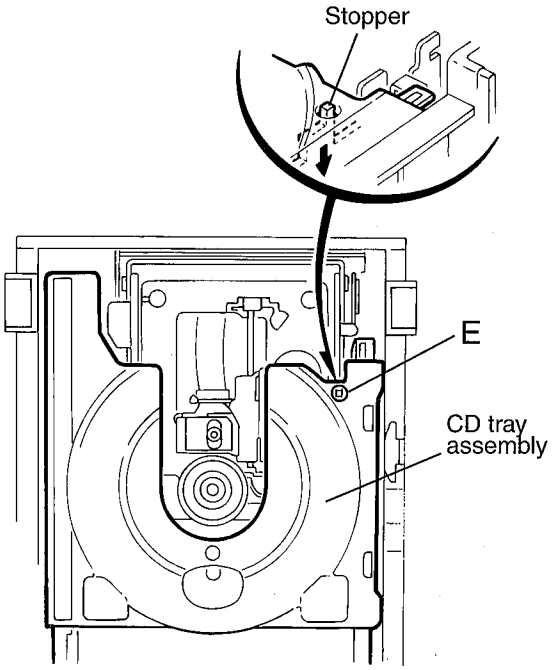


Fig.5

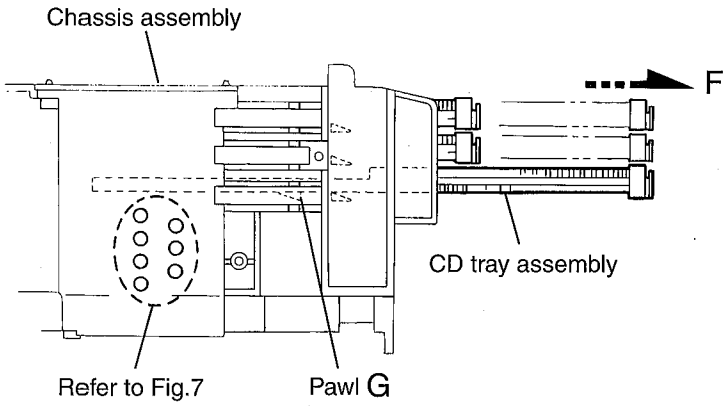


Fig.6

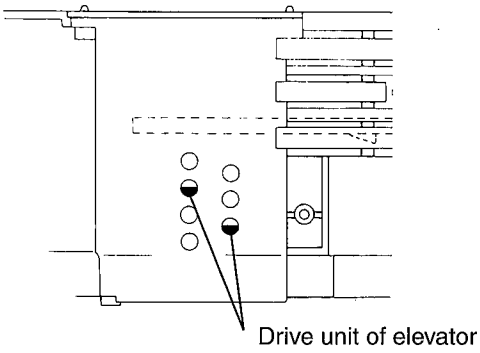


Fig.7

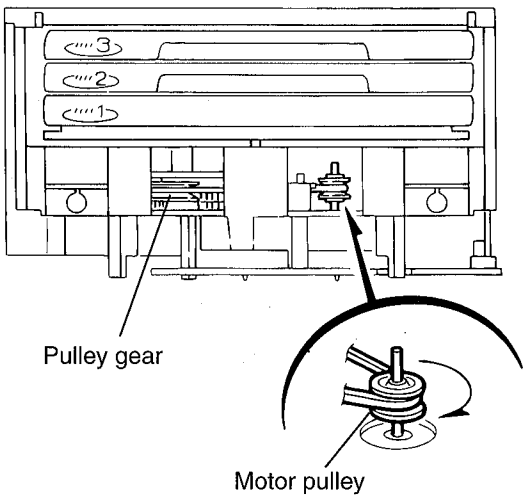


Fig.8

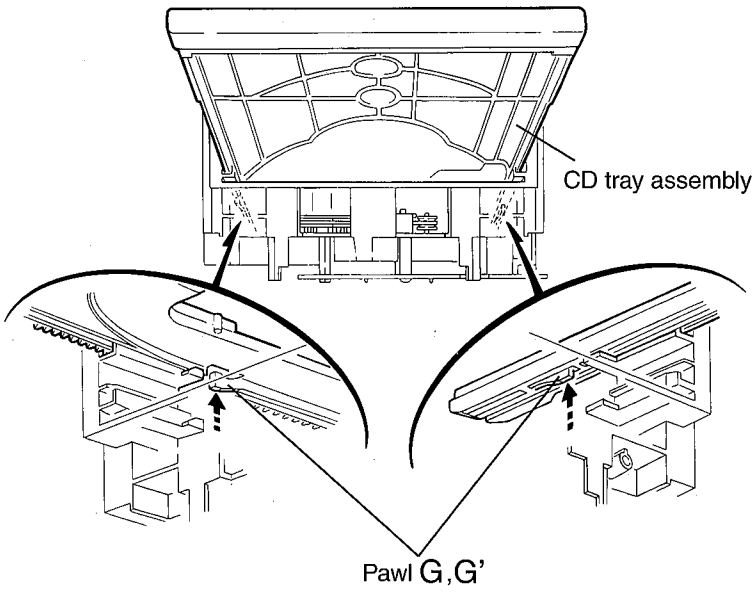


Fig.9

■Removing the CD loading mechanism assembly(See Fig.10)

1. While turning the cams R1 and R2 assembly in the arrow direction "H" , align the shaft "I" of the CD loading mechanism assembly to the position shown in
2. Fig.10.
   Remove the four screws 6 retaining the CD loading mechanism assembly.

■Removing the CD traverse mechanism (See Fig.11 and 12)

1. For dismounting only the CD traverse mechanism without removing the CD loading mechanism assembly, align the shaft "J" of the CD loading mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction "K" .
2. By raising the CD loading mechanism assembly in the arrow direction "L" , remove the assembly from the lifter unit

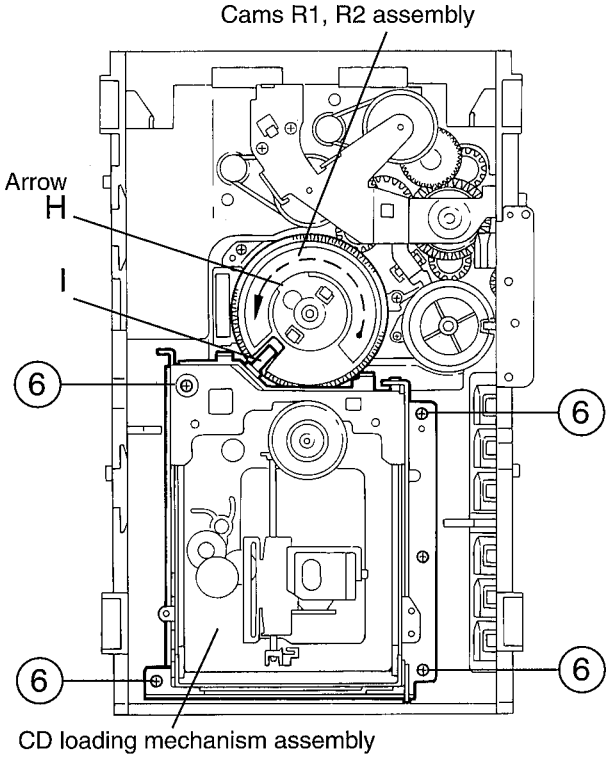


Fig.10

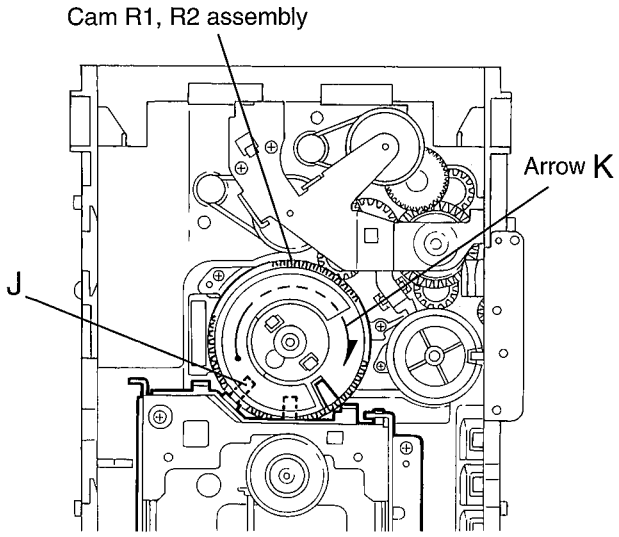


Fig.11

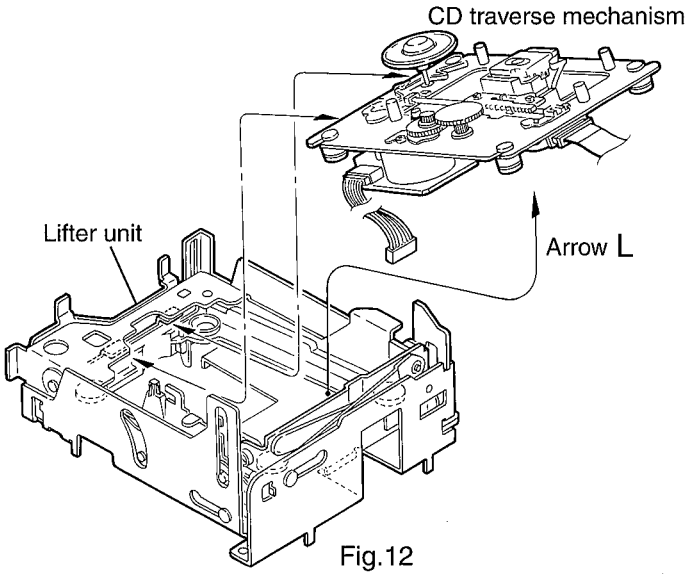


Fig.12

■Removing the CD pick unit (See Fig.13)

1. Move the cam gear in the arrow direction a . Then, the CD pickup unit will be moved in the arrow direction b .
2. According to the above step, shift the CD pickup unit to the center position.
3. While pressing the stopper retaining the shaft in the arrow direction c , pull out the shaft in the arrow direction d .
4. After dismounting the shaft from the CD pickup unit, remove the CD pickup unit

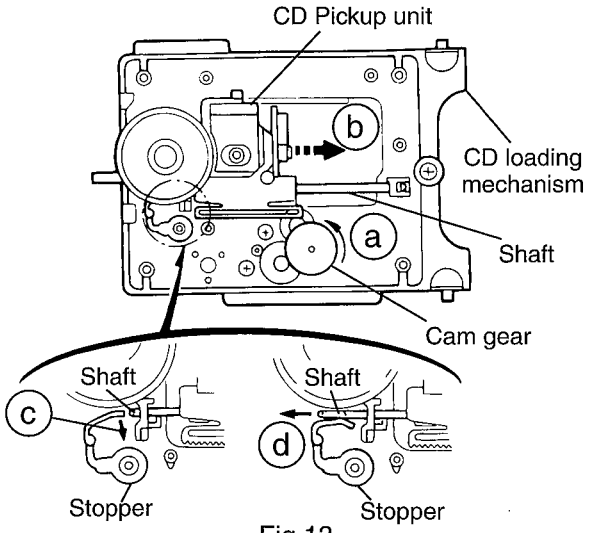


Fig.13

■Removing the cam unit (See Fig.14 ~17)

1. Remove the CD loading mechanism assembly.
2. While turning the cam gear L, align the pawl "N" position of the drive unit to the notch position(Fig.16) on the cam gear L.
3. Pull out the drive unit and cylinder gear(See Fig.17).
4. While turning the cam gear L, align the pawl "O" position of the select lever to the notch position(Fig.18) on the cam gear L.
5. Remove the four screws 9 retaining the cam unit(cam gear L and cams R1/R2 assembly)(See Fig.18).

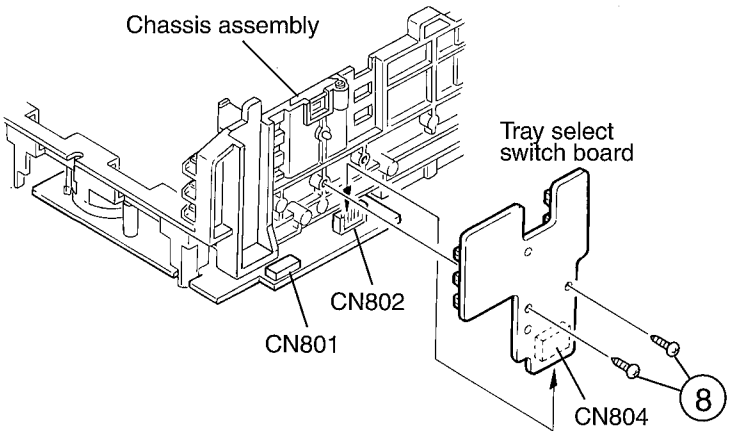


Fig.14

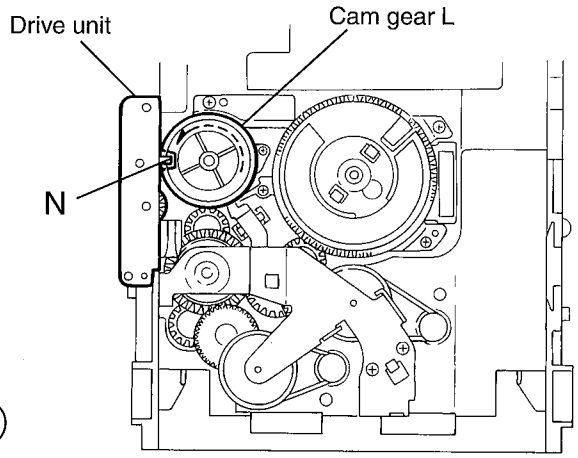


Fig.15

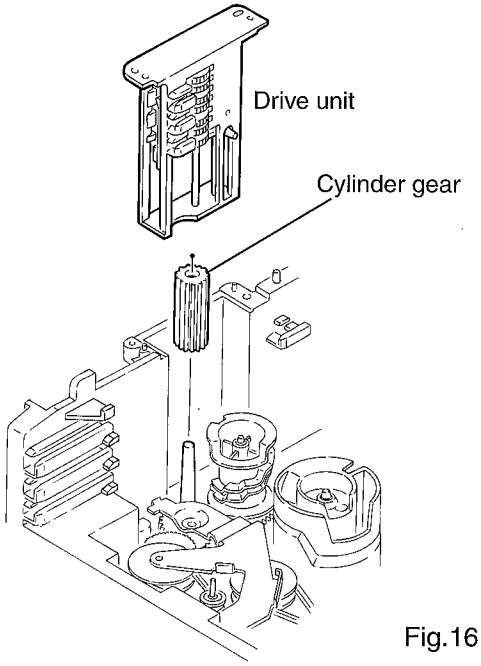


Fig.16

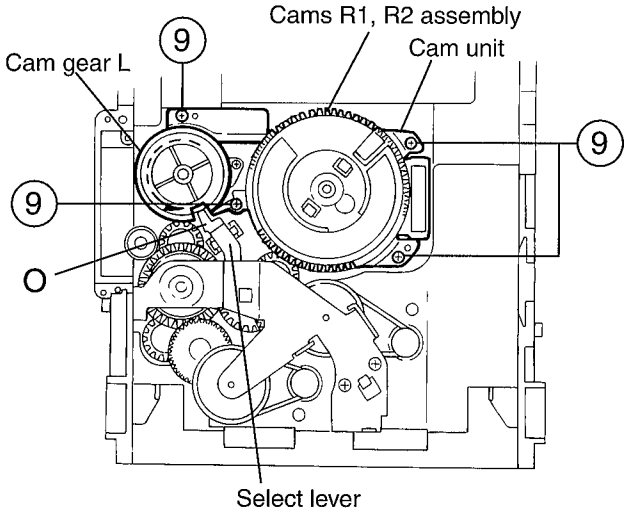


Fig.17

■Removing the actuator motor and belt (See Fig.18~21)

1. Remove the two screws 10 retaining the gear bracket (See Fig.19).
2. While pressing the pawl "P" fixing the gear bracket in the arrow direction, remove the gear bracket (See Fig.19).
3. From the notch "Q section" on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket(See Fig. 20).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears(See Fig. 19).
5. After turning over the chassis assembly, remove the actuator motor while spreading the four pawls "R" fixing the right and left actuator motors in the arrow direction(See Fig. 21).

[Note] When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 22.

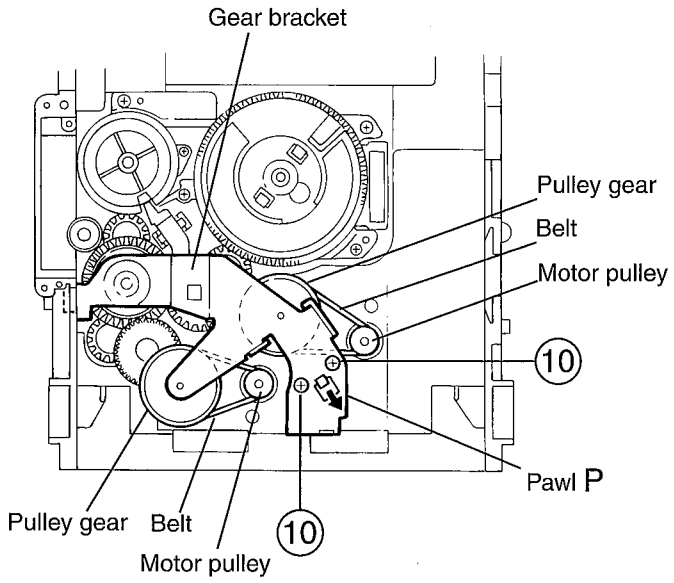


Fig.18

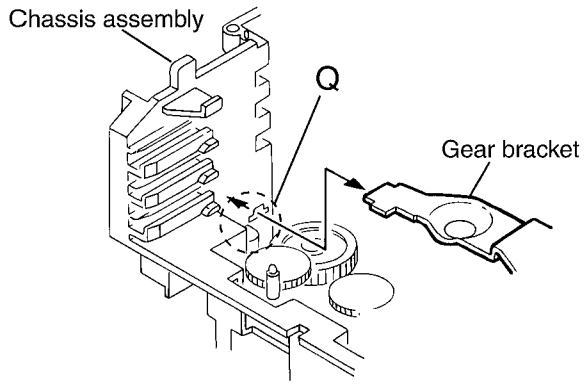


Fig.19

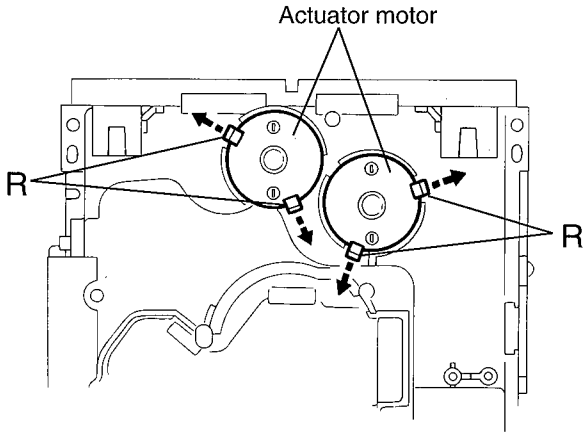


Fig.20

Assembly and Configuration Diagram

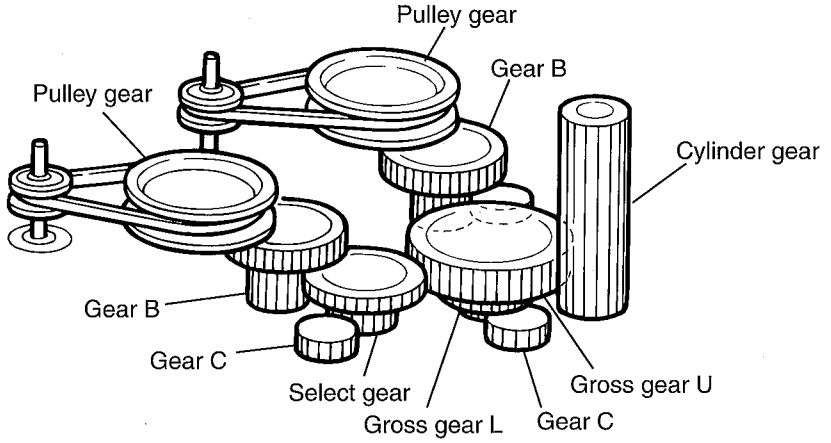


Fig.21

■Removing the cams R1/R2 assembly and cam gear L(See Fig.22)

1. Remove the slit washer fixing the cams R1 and R2 assembly.
2. By removing the two pawls "S" fixing the cam R1, separate R2 from R1.
3. Remove the slit washer fixing the cam gear L.
4. Pull out the cam gear L from the C.G. base assembly.

■Removing the C.G. base assembly (See Fig.22 and 23)

Remove the three screws 11 retaining the C.G. base assembly.

[Caution] To reassemble the cylinder gear, etc.with the cam unit (cam gear and cans R1/R2 assembly), gear unit and drive unit, align the position of the pawl "N" on the drive unit to that o f the notch on the cam gear L. Then, make sure that the gear unit is engaged by turning the cam gear L (See Fig. 24).

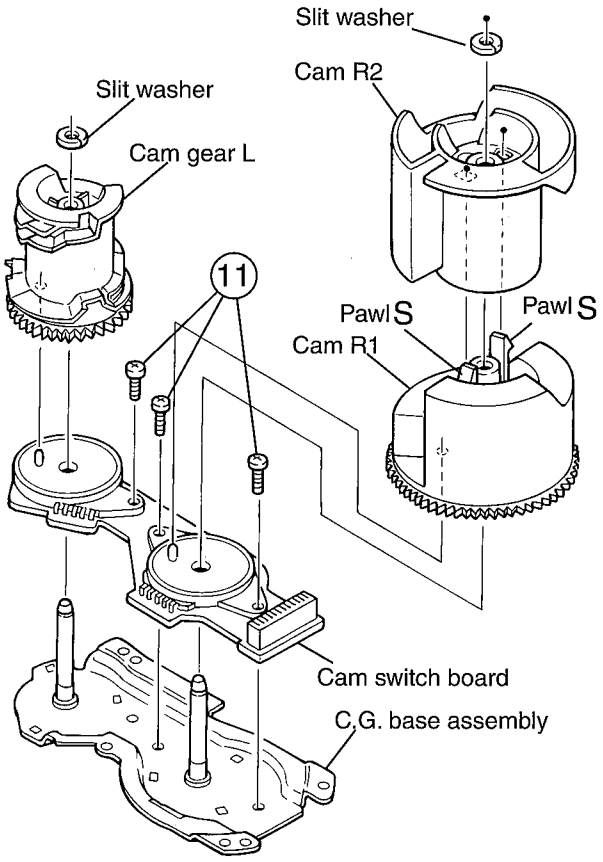


Fig.22

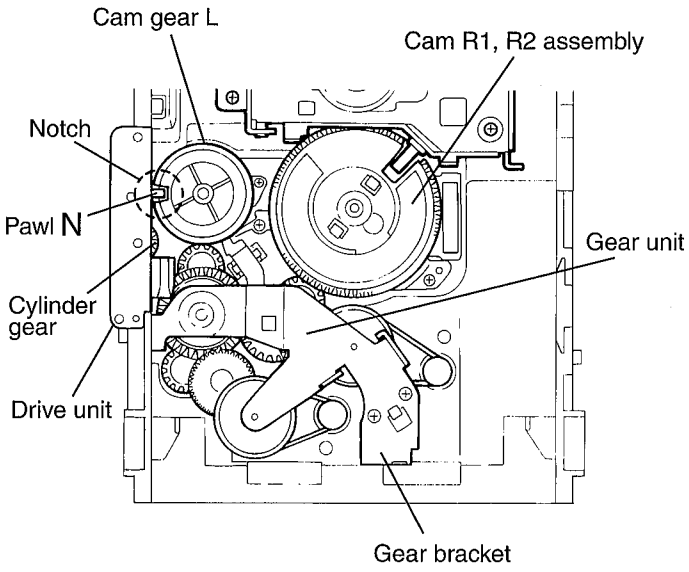


Fig.23

< Cassette Mechanism Section >

■Removing the Playback,Recording and Eraser Heads

1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction,turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig 1).
2. When the flywheel R is rotated in counterclockwise direction, the playback head will be turned in counterclockwise direction from the position in Fig 2 to that in Fig 3.
3. At this position, disconnect the flexible P.C.board (outgoing from the playback head) from the connector CN301 on the head amp. and mechanism control P.C. board.
4. After dismounting the FPC holder,remove the flexible P.C.board.
5. Remove the flexible P.C.board from the chassis base.
6. Remove the spring ⓐ from behind the playback head.
7. Loosen the reversing azimuth screw retaining the playback head.
8. Take out the playback head from the front of the head mount.
9. The recording and erase heads should also be removed similarly according to Steps 1～8 above.

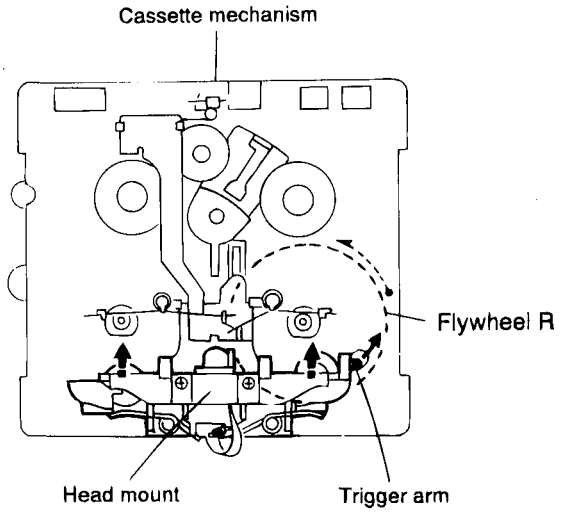


Fig 1 (Mechanism A side)

●Reassembling the Playback,Recording and Erase Heads

1. Reassemble the playback head from the front of the head mount to the position as shown in Fig 3.
2. Fix the reversing azimuth screw.
3. Set the spring ⓐ from behind the playback head.
4. Attach the flexible P.C.board to the chassis base, and fix it with the FPC holder as shown in Fig 3.
5. The recording and eraser heads should also be reassembled similarly according to Steps 1～4 above.

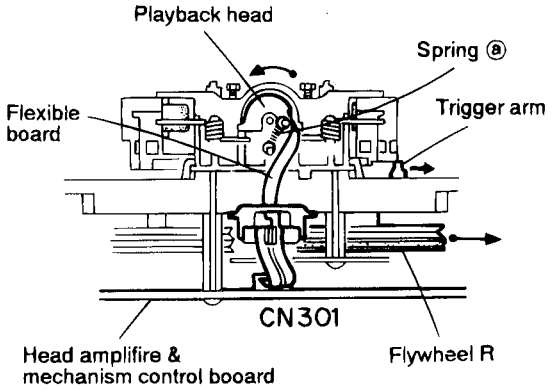


Fig 2 (Mechanism A side)

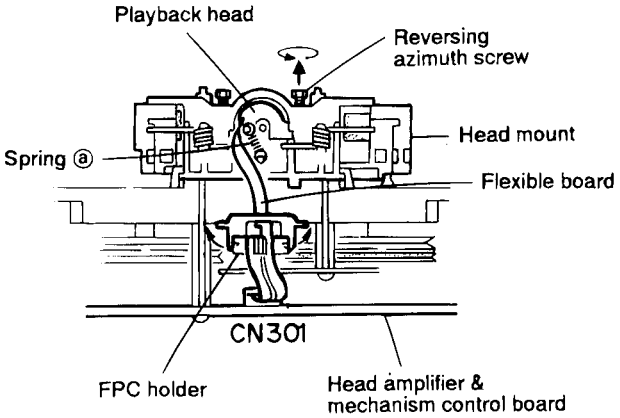


Fig 3 (Mechanism B side)

■Removing the head Amp.and Mechanism Control P.C.Board (See Fig 4)

1.Remove the cassette mechanism assembly.
2.After turning over the cassette mechanism assembly,remove the five screws ① retaining the head amp. and mechanism control P.C. board
3.Disconnect the connectors CN303 and CN304 on the P.C.Board and the connectors CN1 on both the right and left side reel pulse P.C.Boards.
4.When necessary, remove the 4pin parallel wire soldered to the main motor

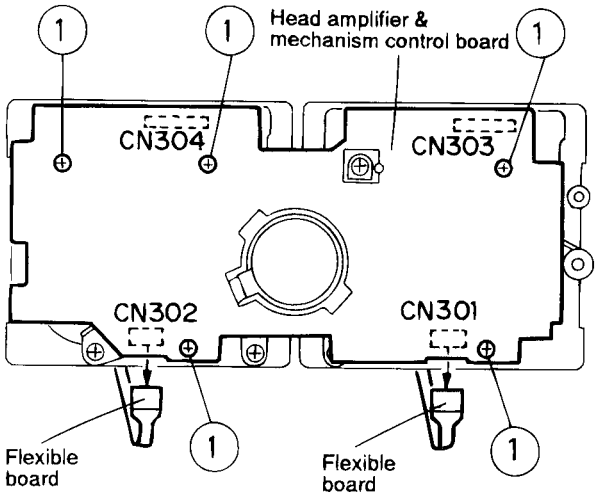


Fig 4

■Removing the Capstan Motor Assembly

1.Remove the six screws ② retaining capstan motor assembly (See Fig 5).
2.While raising the capstan motor, remove the capstan belts A and B respectively from the motor pulley (See Fig 6).

Caution 1: Be sure to handle the capstan belts so carefully that these belts will not be stained by grease and other foreign matter. Moreover, these belts should be hand while referring to the capstan belt hanging method.

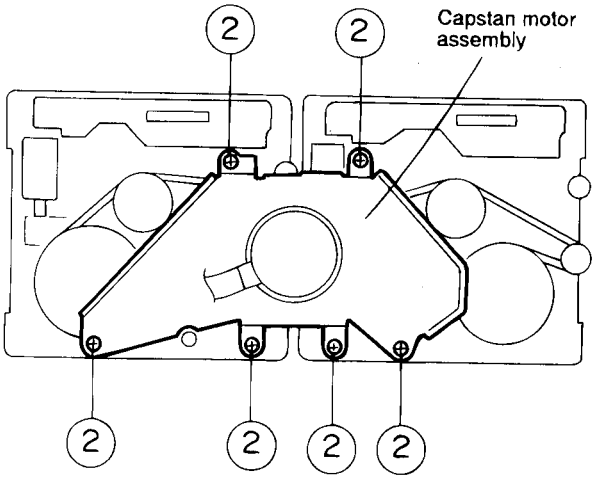


Fig 5

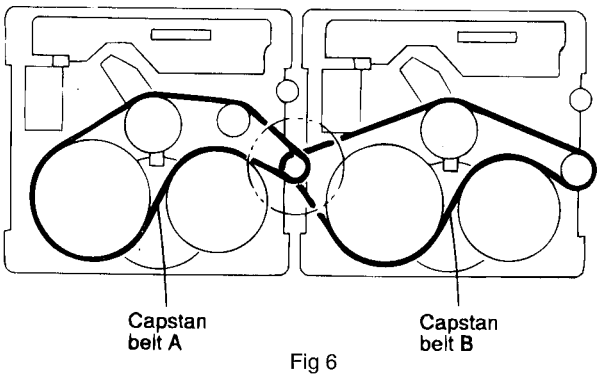


Fig 6

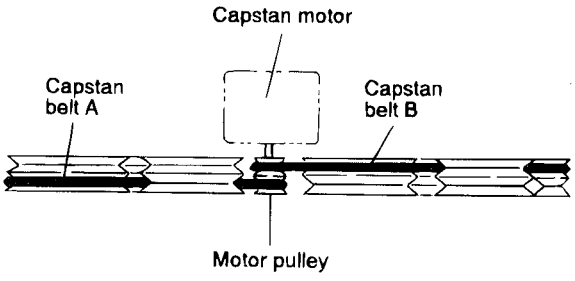


Fig 7

■ Removing the Capstan Motor (See Fig 8)

From the joint bracket, remove the two screws③ retaining the capstan motor.

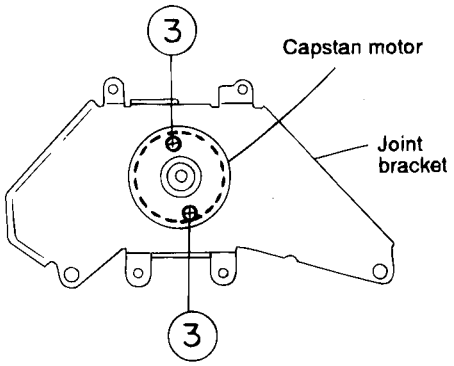


Fig 8

■ Removing the Flywheel (See Fig 9.10)

1. Remove the head amp. and mechanism control P.C.Board.
2. Remove the capstan motor assembly.
3. After turning over the cassette mechanism, remove the slit washers ⓐ and ⓑ fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.

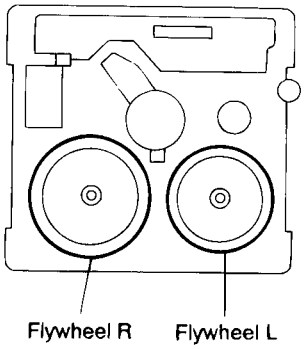


Fig 9

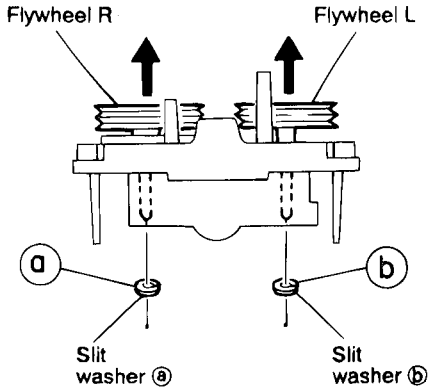


Fig 10

■ Removing the Reel Pulse P.C.Board and Solenoid (See Fig 11)

1. Remove the five pawls (ⓒ ⓓ ⓔ ⓕ) retaining the reel pulse P.C.Board.
2. From the surface of the reel pulse P.C.Board parts, remove the two pawls ⓗ and ⓘ retaining the solenoid.

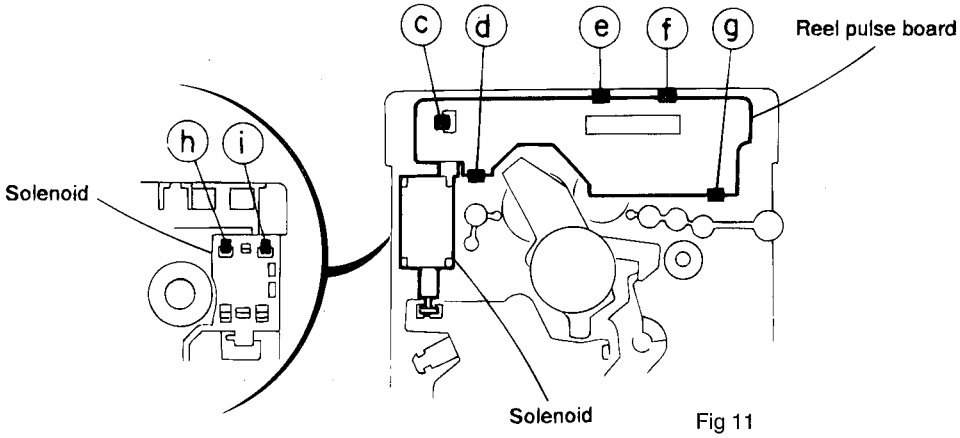
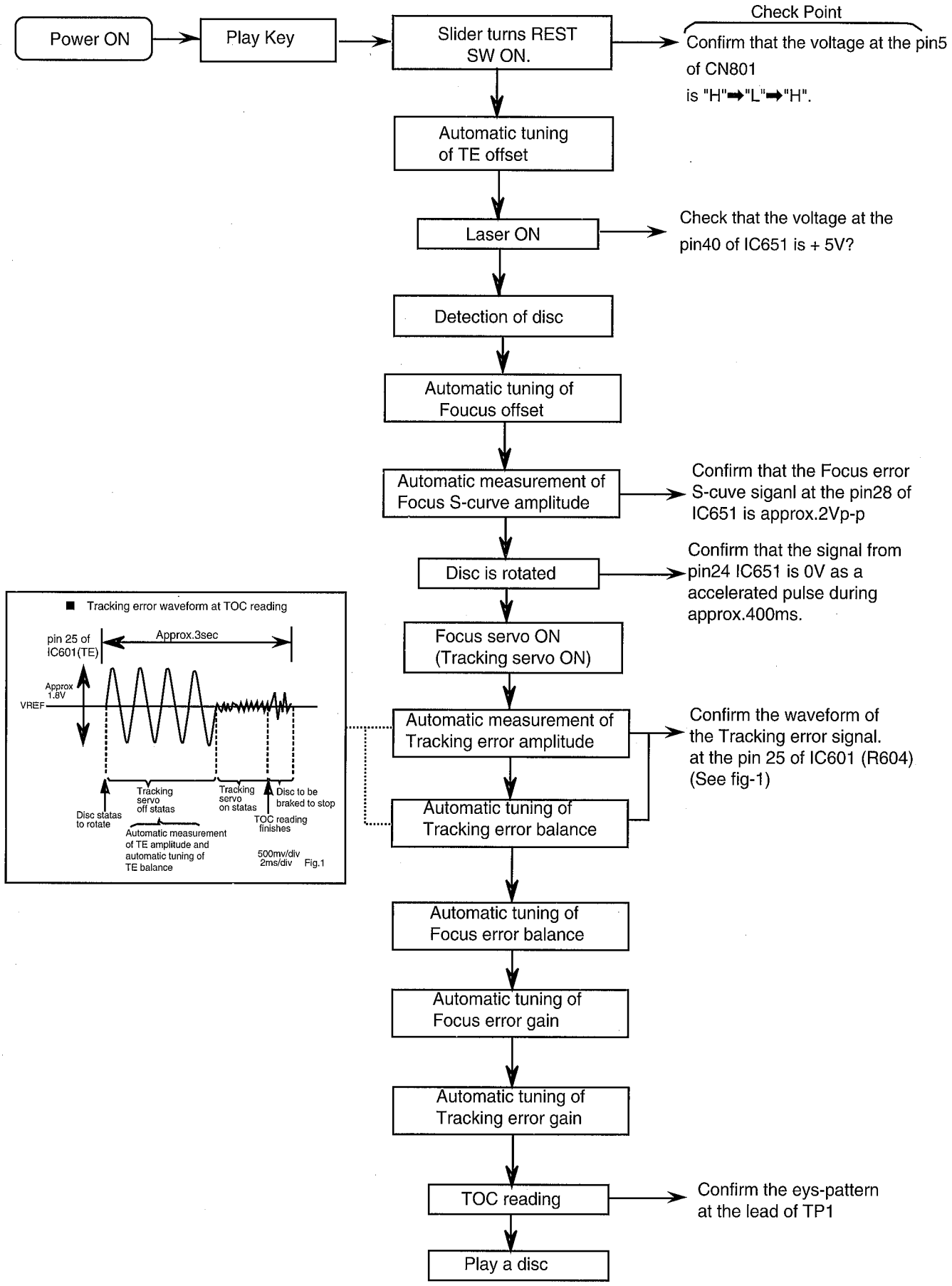


Fig 11

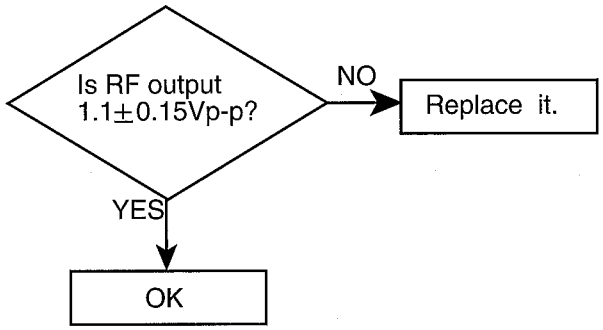
Flow of Functional Operation Until TOC Read


Power ON
Play Key
Slider turns REST SW ON.
Check Point
Confirm that the voltage at the pin5 of CN801 is "H"➡"L"➡"H".
Automatic tuning of TE offset
Laser ON
Check that the voltage at the pin40 of IC651 is + 5V?
Detection of disc
Automatic tuning of Foucus offset
Automatic measurement of Focus S-curve amplitude
Confirm that the Focus error S-cuve siganl at the pin28 of IC651 is approx.2Vp-p
Disc is rotated
Confirm that the signal from pin24 IC651 is 0V as a accelerated pulse during approx.400ms.
Focus servo ON (Tracking servo ON)
Automatic measurement of Tracking error amplitude
Confirm the waveform of the Tracking error signal. at the pin 25 of IC601 (R604) (See fig-1)
Automatic tuning of Tracking error balance
Automatic tuning of Focus error balance
Automatic tuning of Focus error gain
Automatic tuning of Tracking error gain
TOC reading
Confirm the eys-pattern at the lead of TP1
Play a disc
■ Tracking error waveform at TOC reading
pin 25 of IC601(TE)
Approx.3sec
Approx 1.8V
VREF
Tracking servo off statas
Tracking servo on statas
Disc to be braked to stop
Disc statas to rotate
TOC reading finishes
Automatic measurement of TE amplitude and automatic tuning of TE balance
500mv/div
2ms/div
Fig.1

Maintenance of Laser Pickup

(1) Cleaning the pick up lens
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

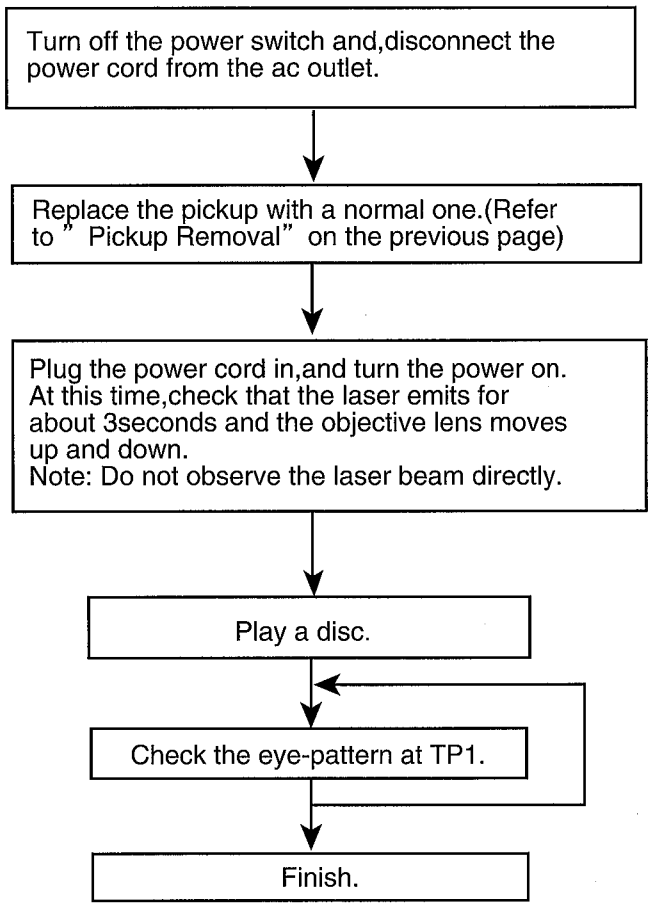
(2) Life of the laser diode (Fig.1)
When the life of the laser diode has expired, the following symptoms wil appear.
(1) The level of RF output (EFM output:amplitude of eye pattern) will below.



(Fig.1)

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value,the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally,the laser pickup may be damaged due to excessive current.

Replacement of Laser Pickup


Turn off the power switch and,disconnect the power cord from the ac outlet.
Replace the pickup with a normal one.(Refer to " Pickup Removal" on the previous page)
Plug the power cord in,and turn the power on. At this time,check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc.
Check the eye-pattern at TP1.
Finish.

Adjustment Procedures

■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator,
   This oscillator should have a capacity to output 0dBs to 600Ω at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600Ω
3. Electronic voltmeter
4. Frequency counter
5. Wow flutter meter
6. Test tape
   VTT712 : For Tape speed and wow flutter (3kHz)
   VTT724 : For Reference level (1kHz)
   TMT7036 : For Head angle(10kHz),Play back frequency characteristics(1kHz),and dubbing frequency characteristics(63,1,10kHz)
   Because of frequency-mixed tape with 63,1k,10k and 14kHz(250nWb/m -24dB).
   Use this tape together with a filter.
7. Blank tape
   TAPE Ⅰ : AC-225, TAPE Ⅱ : AC-514
8. Torque gauge : For play and back tension
   Forward ; TW2111A, Reverse ; TW2121A
   Fast Forward and Rewind ; TW2231A
9. Test disc
   : CTS-1000(12cm),GRG-1211(8cm)
10. Jitter meter

■ Measurement Conditions

Power supply voltage : AC110-240V(50Hz) for U,A group
: 220V(60Hz) for UP
: 120V(60Hz) for J,C
Reference output : Speaker 0.775V/6 Ω
: Headphone 0.0775V/32 Ω
Measurement
output terminal : Speaker out
:TP101(Mesuring for TUNER/DECK/CD)

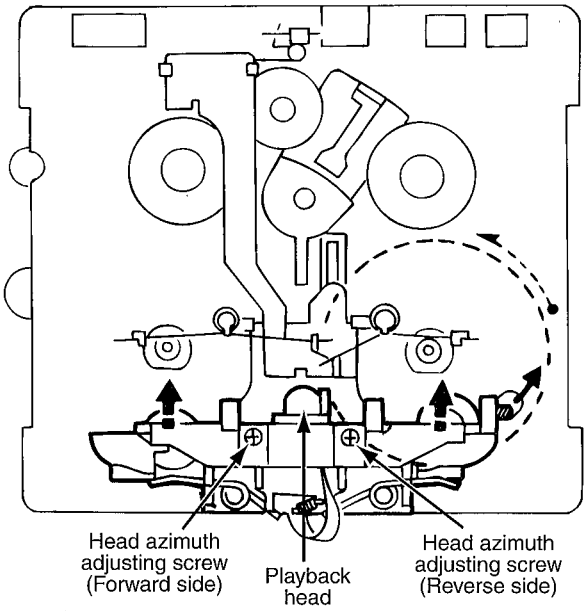
Radio input signal
AM modulation frequency : 400Hz
Modulation factor : 30%
FM modulation frequency : 400Hz
Frequency displacement : 22.5kHz

Standard measurement positions of volume and switch
Power : Standby (Light STANDBY Indicator)
Sound mode : Off
SA-Bass : Off
Main VOL. : 0 Minimum
KARAOKE : OFF (U,A group only)
ECHO : OFF (U,A group omly)
Travers mecha set position : Disc 1

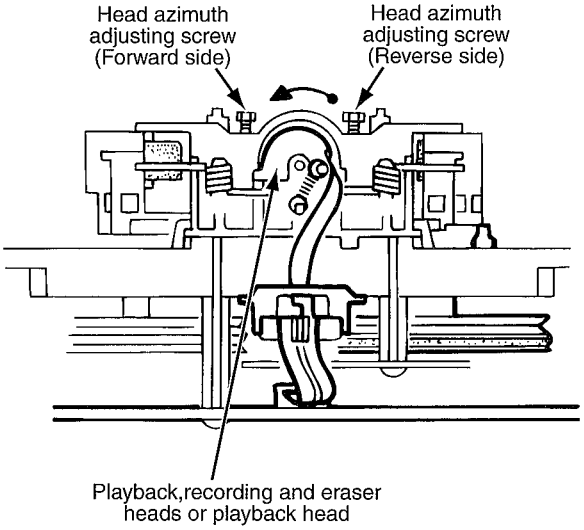
Precautions for Measurement
1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly.
7. In the case of BTL connection amplifier, the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.

■Arrangement of Adjusting Positions

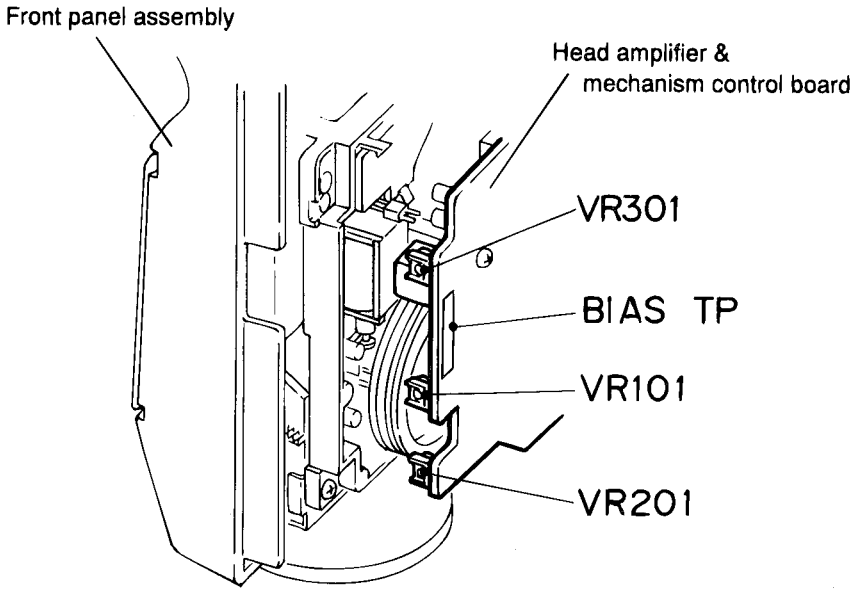
Cassette mechanism section (Mechanism A section)



Cassette mechanism section (Back side)


Head azimuth adjusting screw (Forward side)
Head azimuth adjusting screw (Reverse side)
Playback,recording and eraser heads or playback head

Cassette Mechanism Unit Section



■Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Confirmation of head angle	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistor:3Ω) :Headphone terminal	1.Playback the test tape TMT7036(10kHz). 2.With the playback mechanism or recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum.After adjustment,lock the head azimuth at least by half a turn. 3.In either case,this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape :VTT712(3kHz) or TMT7036(3kHz) Measurement output terminal :Headphone terminal	<Constant speed> Adjust VR301 so that the frequency counter reading becomes 3,010Hz±15Hz when playing back the test tape VTT712(3kHz)with the playback mechanism or playback and recording mechanism after ending forward winding of the tape.	Tape speed of decks (A and B) :3,010Hz ±15Hz	VR301

■Reference Values for Confirmation items

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Double tape speed	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistance:3Ω) measurement output terminal :Headphone terminal	After setting to the double speed motor, confirm that the frequency counter reading becomes 4,800+400/-300Hz when the test tape VTT712 (3kHz) has been play back with the playback mechanism.	4,800+400/-300Hz	Playback mechanism side
Difference between the forward and reverse speed. P.mecha and R/P mecha speed		When the test tape VTT712(3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	60Hz or less	Both the playback and recording & playback mechanism
Wow & flutter	Test tape :TMT7036(10kHz) Measurement output terminal :Headphone terminal	When the test tape VTT712(3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding the frequency counter reading of wow& flutter should be 0.25% or less(WRMS).	0.25% or less (WRMS)	Both the playback and recording & playback mechanism

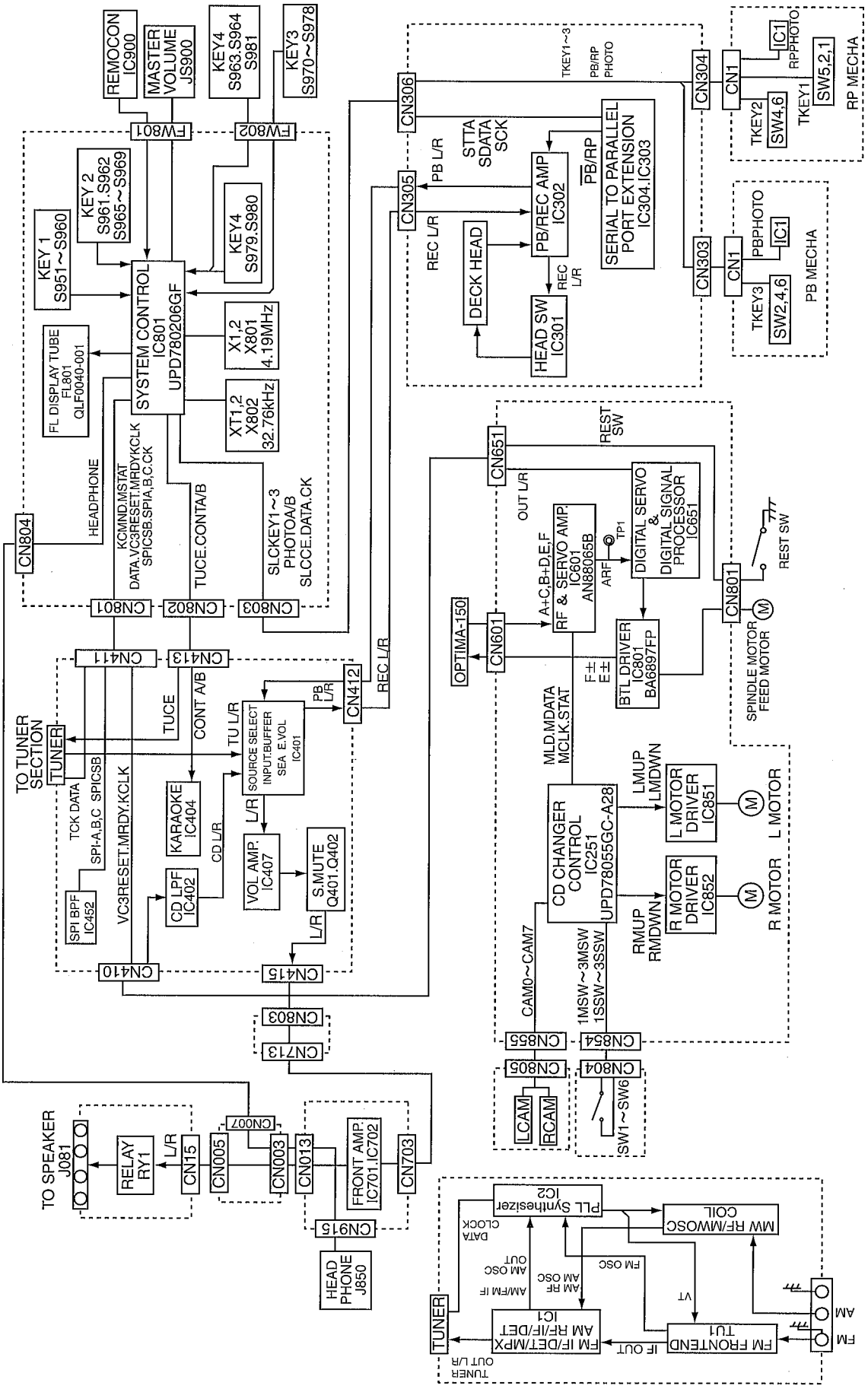
■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	*Mode : Forward or reverse mode *Recording mode *Test tape :AC-514 and AC-225 Measurement output terminal :Both recording and headphone terminals	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYP Ⅱ and AC-225 to TYP Ⅰ),and set the mechanism to the recording and pausing conditions in advance. 2.After connecting 100Ω in series to the recorder head,measure the bias current with a valve voltmeter at both of the terminals. 3.After resetting the [PAUSE] mode,start recording. At this time,adjust VR101 for LcH and VR201 for RcH so that the recording bias current values become 4.0μA (TYP Ⅰ) and 4.20μA(TYP Ⅱ).	AC-225 :4.20μA AC-514 :4.0μA	LcH :VR101 RcH :VR201
Adjustment of recording and playback frequency characteristics	Reference frequency :1kHz and 10kHz (REF:-20dB) Test tape :TYP Ⅱ AC-514 Measurement input terminal :OSC IN	1.With the recording and playback mechanism,load the test tape(AC-514 to TYP Ⅱ),and set the mechanism to the recording and pausing condition in advance. 2.While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and playback the test tape. 3.While recording and playing back the test tape in TYP Ⅱ,adjust VR101 for LcH and VR201 for RcH so that the output deviation between 1kHz and 10kHz becomes -1dB±2dB.	Output deviation between 1kHz and 10kH :-1dB±2dB	LcH :VR101 RcH :VR201

■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Recording bias frequency	*Recording and playback side forward or reverse *Test tape :TYP Ⅱ AC-514 *Measurement terminal BIAS TP on P.C.board	1.While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 2.With the recording and playback mechanism. load the test tape (AC-514 to TYP Ⅱ),and set the mechanism to the recording and pausing conditions in advance. 3.Confirm that the BIAS TP frequency on the P.C.board is 100kHz±6kHz.	100kHz ±6kHz	
Eraser current (Reference value)	*Recording and playback side forward or reverse *Recording mode *Test tape :AC-514 and AC-225 Measurement terminal Both of the eraser head	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYP Ⅱ and AC-225 to TYP Ⅰ),and set the mechanism to the recording and pausing condition in advance. 2.After setting to the recording conditions,connect 1MΩ in series to the eraser head on the recording and playback mechanism side,and measure the eraser current from both of the eraser terminal.	TYP Ⅱ :120mA TYP Ⅰ :75mA	

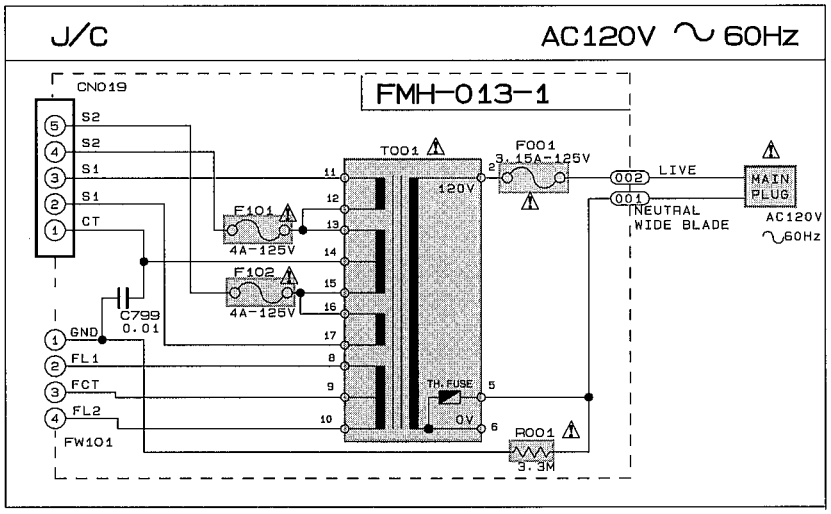
■Block Diagrams



■ Power Transformer Section

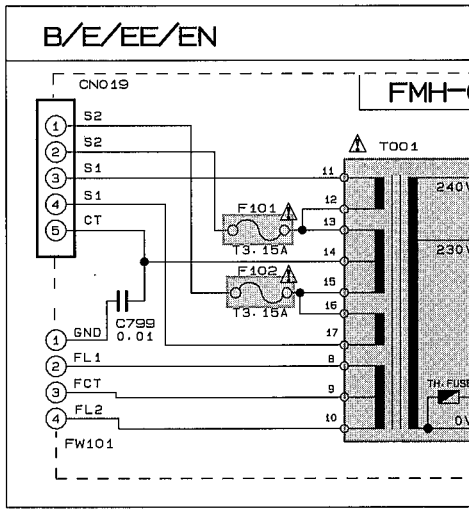
POWER SUPPLY BLOCK

J/C AC120V ~ 60Hz



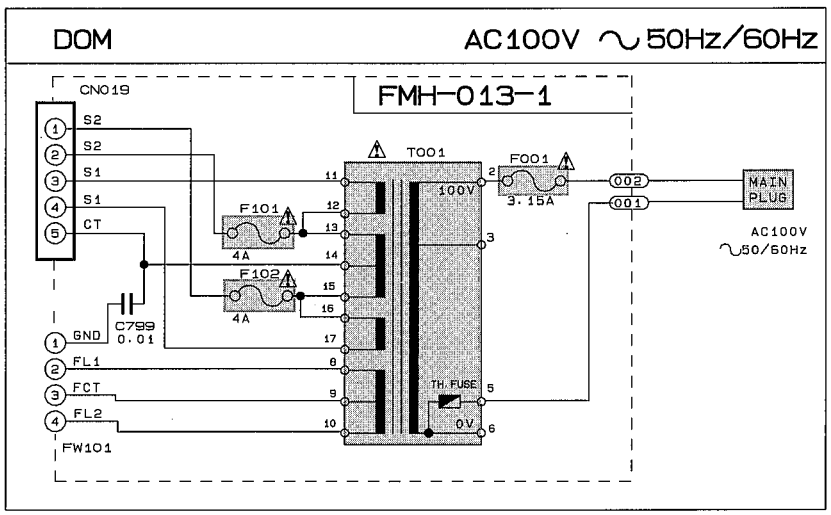
POWER SUPPLY BLOCK

B/E/EE/EN



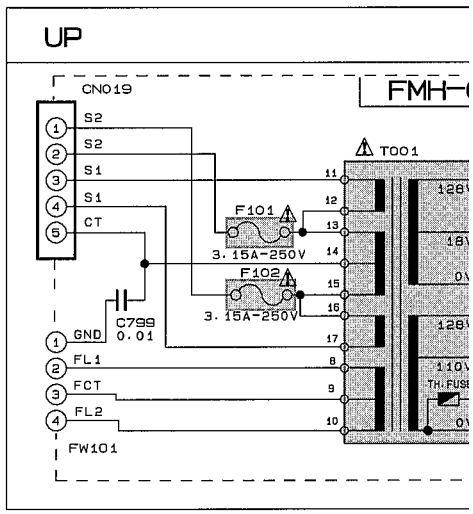
POWER SUPPLY BLOCK

DOM AC100V ~ 50Hz/60Hz



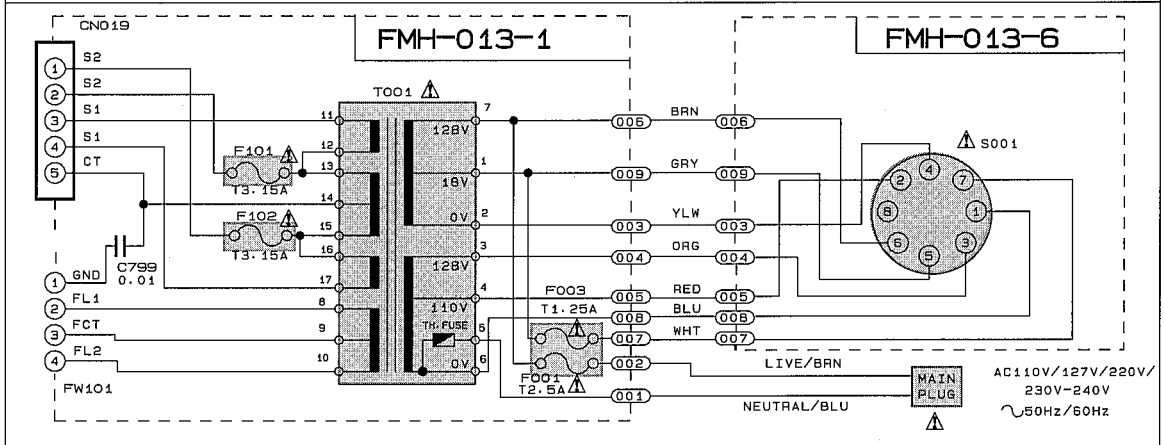
POWER SUPPLY BLOCK

UP

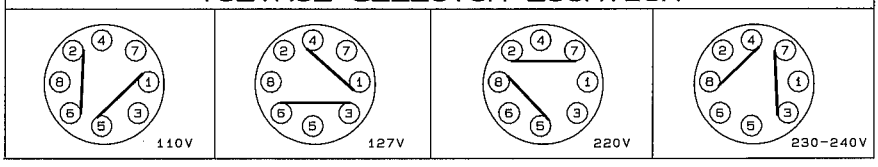


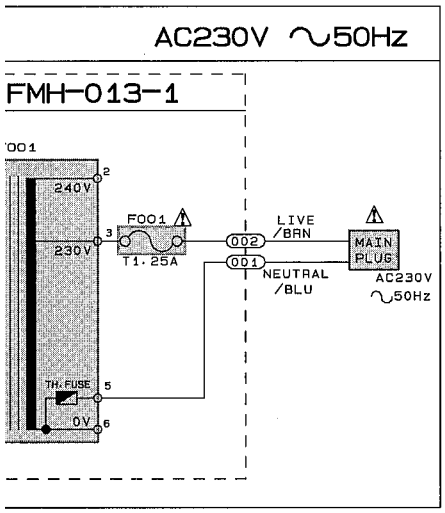
POWER SUPPLY BLOCK

U/UB/UR/US/UT/UX/A AC110V/127V/220V/230V-240V ~ 50Hz/60Hz



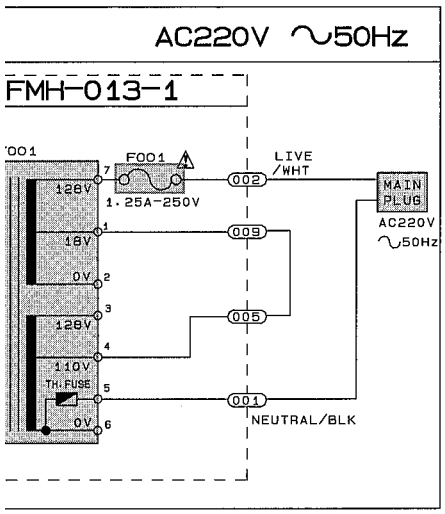
VOLTAGE SELECTOR LOCATION





VERSION CODES

J :U.S.A.
C :CANADA
B :U.K
E :CONTINENTAL EUROPE
EE :EASTERN EUROPE
EN :NORDIC COUNTRIES
A :AUSTRALIA
UB :HONGKONG
UP :KOREA
UR :BRAZIL
US :SINGAPORE
UT :TAIWAN
UX :SAUDI ARABIA
U :UNIVERSIAL EXCEPT ALL OF ABOVES
DOM:JAPAN



EXPLANATION OF OVERALL OF SCHEMA.

MODEL MX-D402T/CA-D432TR/CA-D452TR/CA-MXD330

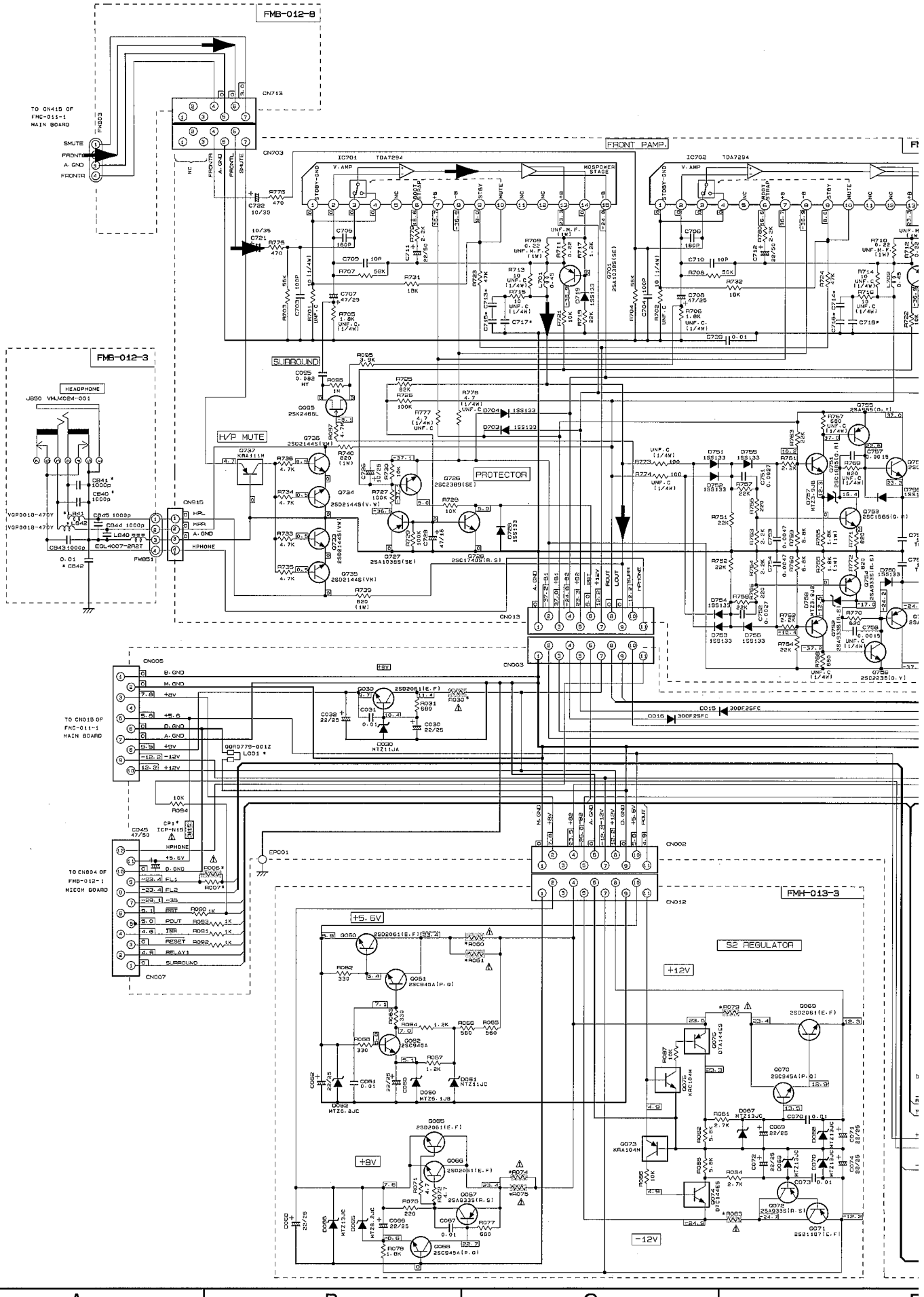
SHEET NUMBER	MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
1/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	.PRIMARY WITH MAINS TRANSFORMER
2/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	.DC REGULATORS/AUDIO OUTPUT
3/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	.EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/11	MX-D402T/CA-MXD330	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR J,C,U,UB,UP,UR,US,UT,UX,A,DOM)
5/11	CA-D432TR/CA-D452TR	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR E,EN,B)
6/11	CA-D452TR	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR EE)
7/11	CA-D452TR	.POLAR STEREO MULTIPLEX (ONLY FOR EE)
8/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	.FL DISPLAY, SYSTEM CONTROL LSI, USER CONTROL KEYS
9/11	MX-D402T	.MIC AMP, ECHO CIRCUIT (ONLY FOR U,UB,UP,UR,US,UT,UX,A)
10/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	.TAPE DECK MECHANISM CONTROL .TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
11/11	MX-D402T/CA-D432TR CA-D452TR/CA-MXD330	.CD SERVO AND CD SYSTEM CONTROL .CD CHANGER MECHANISM CONTROL

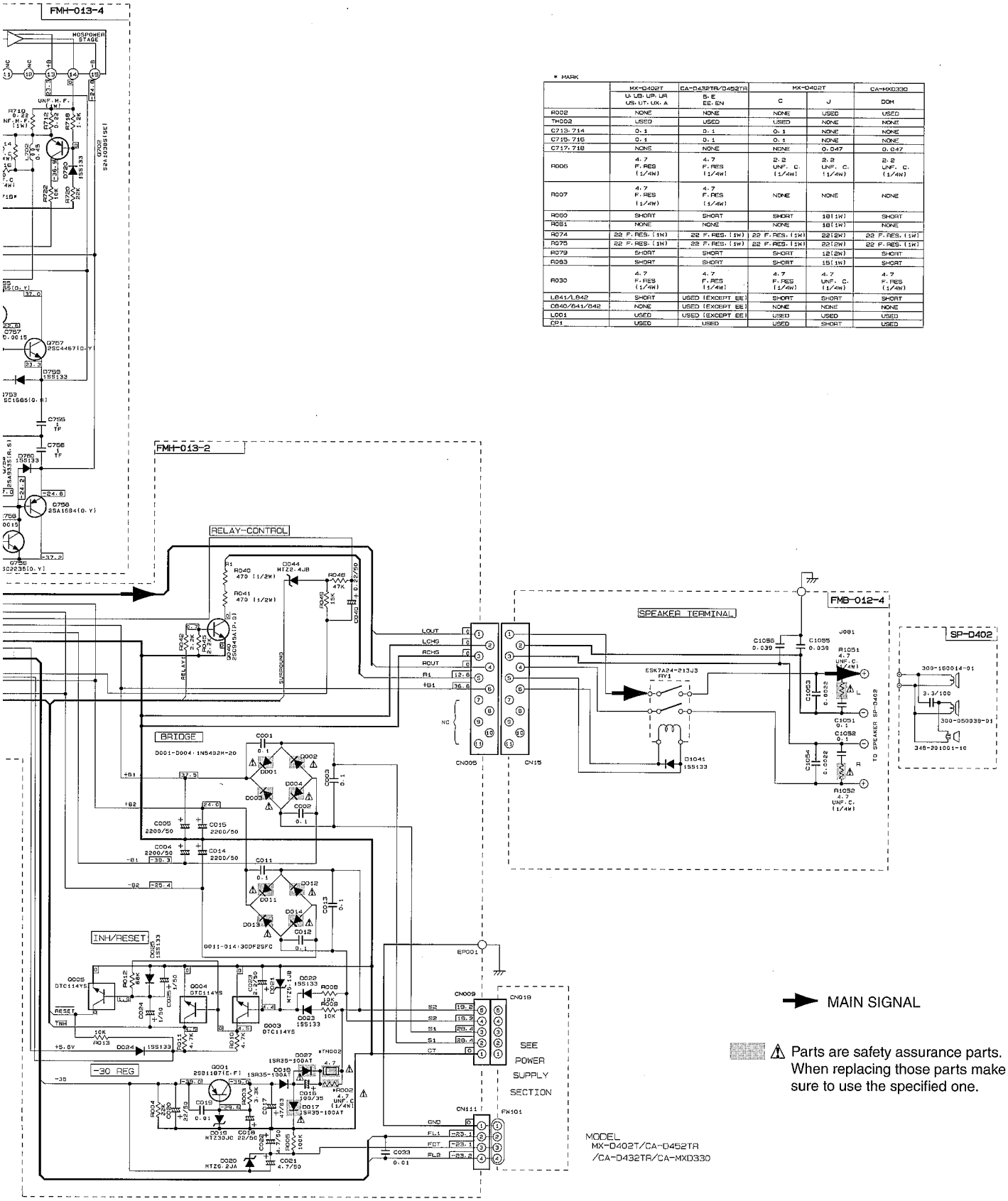
NOTES: MARK [*] IS TO SHOW DEVIATION IN VERSIONS.
DETAILS ARE EXPLAINED NEAR THE MARK.

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

MODEL MX-D402T/CA-D432TR
CA-D452TR/CA-MXD330

■Power Amplifier & Regulator Section

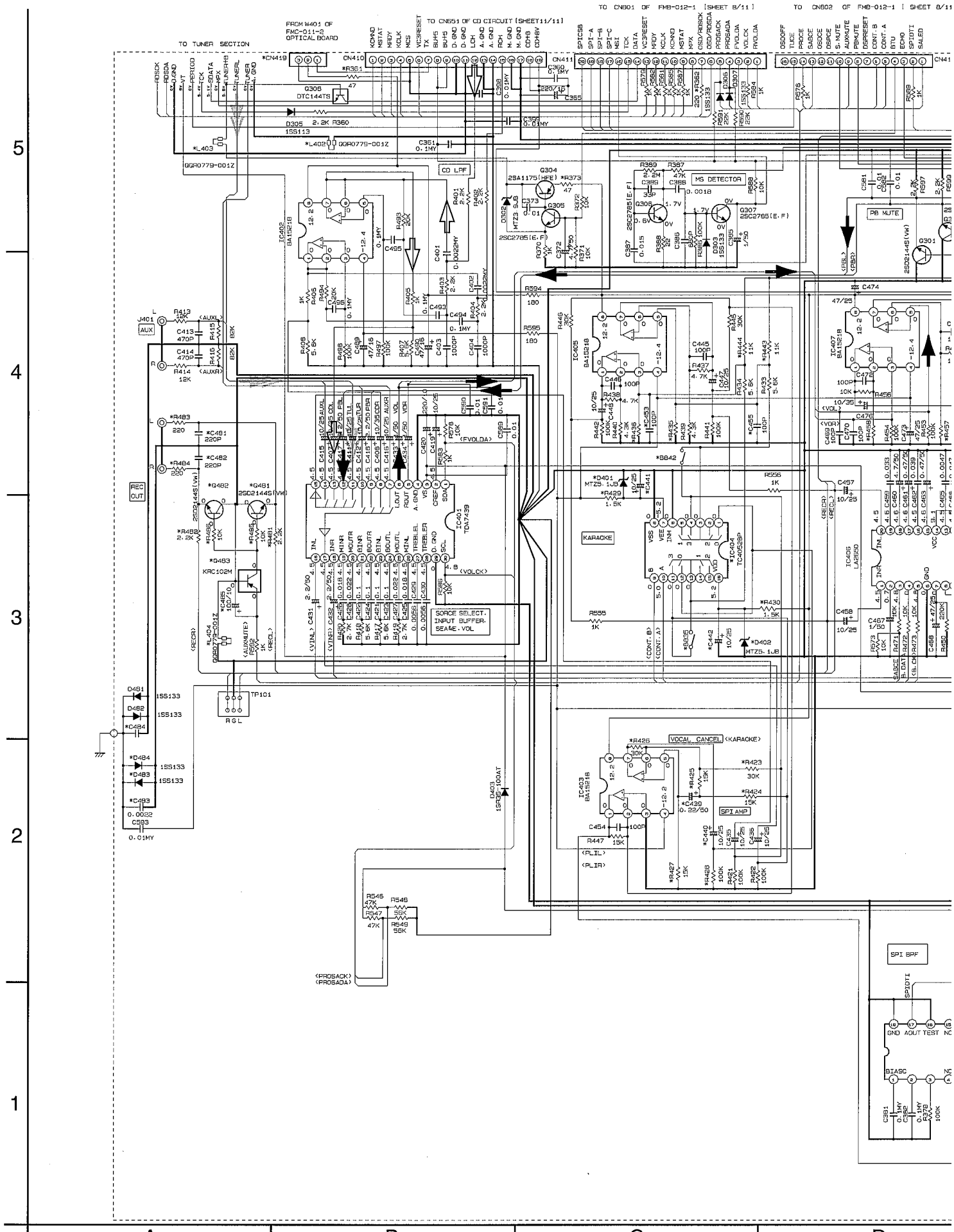


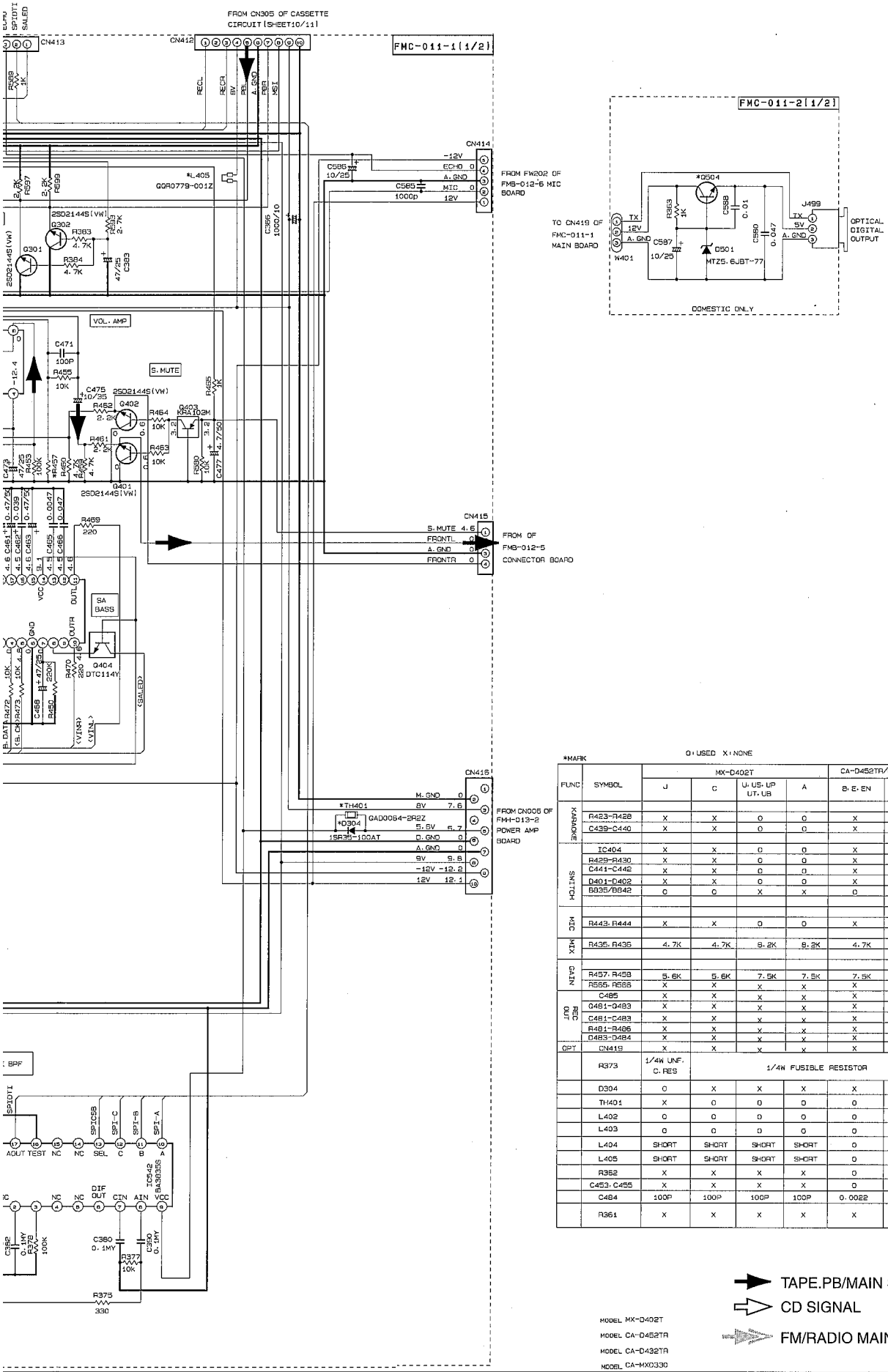


* MARK

	MX-D402T	CA-D432TR/D452TR	MX-D402T		CA-MXD330
	U, UB, UP, UR US, UT, UX, A	E, EE EE, EN	C	J	DDM
R002	NONE	NONE	NONE	USED	USED
TH002	USED	USED	USED	NONE	NONE
C713, 714	0.1	0.1	0.1	NONE	NONE
C715, 716	0.1	0.1	0.1	NONE	NONE
C717, 718	NONE	NONE	NONE	0.047	0.047
R006	4.7 F. RES (1/4W)	4.7 F. RES (1/4W)	2.2 UNF. C. (1/4W)	2.2 UNF. C. (1/4W)	2.2 UNF. C. (1/4W)
R007	4.7 F. RES (1/4W)	4.7 F. RES (1/4W)	NONE	NONE	NONE
R080	SHORT	SHORT	SHORT	18(1W)	SHORT
R081	NONE	NONE	NONE	18(1W)	NONE
R074	22 F. RES. (1W)	22 F. RES. (1W)	22 F. RES. (1W)	22(2W)	22 F. RES. (1W)
R075	22 F. RES. (1W)	22 F. RES. (1W)	22 F. RES. (1W)	22(2W)	22 F. RES. (1W)
R079	SHORT	SHORT	SHORT	12(2W)	SHORT
R093	SHORT	SHORT	SHORT	15(1W)	SHORT
R030	4.7 F. RES (1/4W)	4.7 F. RES (1/4W)	4.7 F. RES (1/4W)	4.7 UNF. C. (1/4W)	4.7 F. RES (1/4W)
L841/L842	SHORT	USED (EXCEPT EE)	SHORT	SHORT	SHORT
D840/841/842	NONE	USED (EXCEPT EE)	NONE	NONE	NONE
L001	USED	USED (EXCEPT EE)	USED	USED	USED
CP1	USED	USED	USED	SHORT	USED

■ Function & Volume Amplifier Section





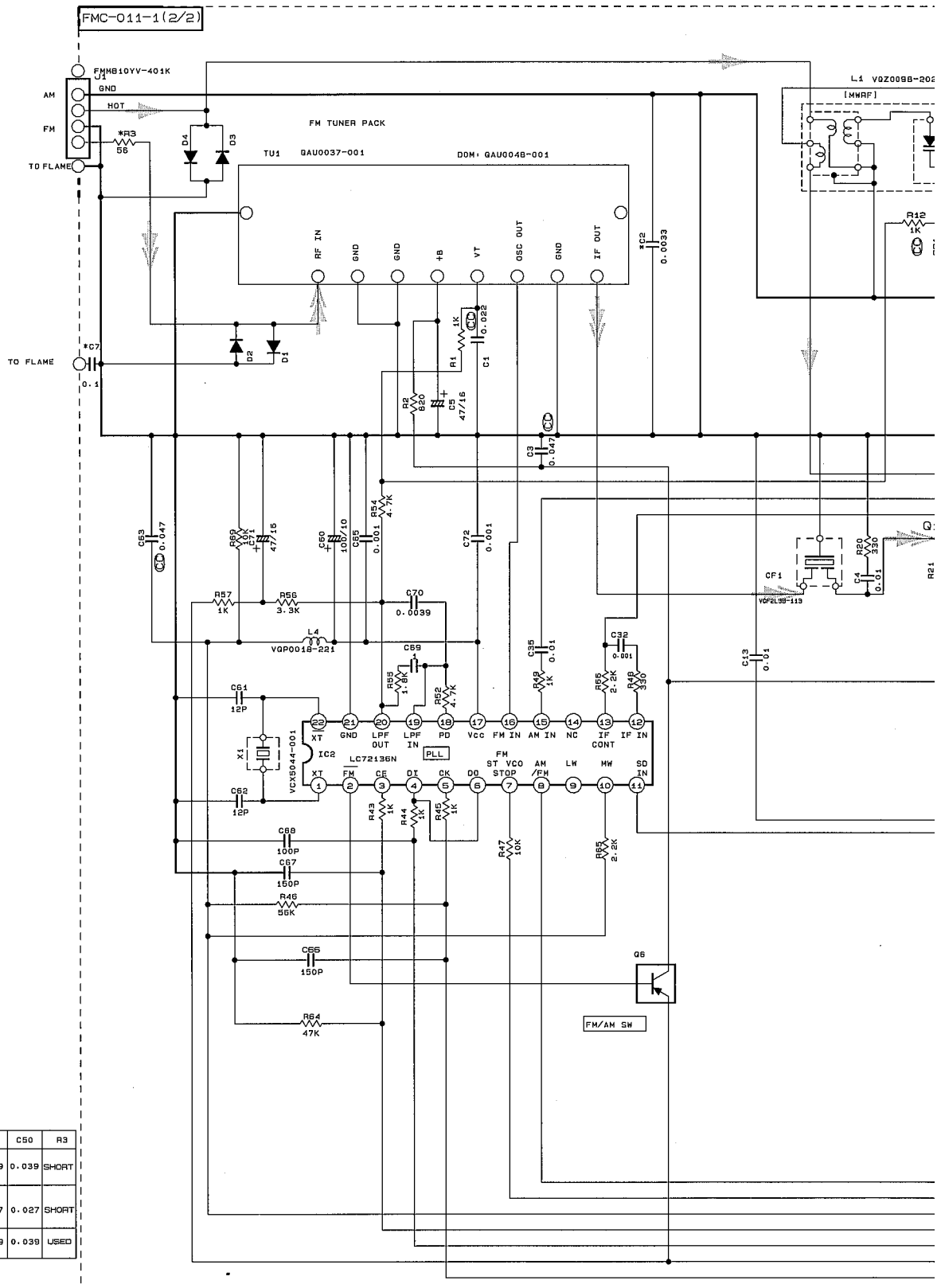
*MARK

O: USED X: NONE

FUNC	SYMBOL	MX-D402T J	MX-D402T C	MX-D402T U.US.UP UT.UB	MX-D402T A	CA-D452TR/D432TR B.E.EN	CA-D452TR/D432TR EE	CA-MXD330 DOM
KARAOKE	R423-R428	X	X	O	O	X	X	X
	C439-C440	X	X	O	O	X	X	X
SWITCH	IC404	X	X	O	O	X	X	X
	R429-R430	X	X	O	O	X	X	X
	C441-C442	X	X	O	O	X	X	X
	D401-D402	X	X	O	O	X	X	X
	B835/B842	O	O	X	X	O	O	O
MIC	R443, R444	X	X	O	O	X	X	X
MIX	R435, R436	4.7K	4.7K	9.2K	9.2K	4.7K	4.7K	4.7K
GAIN	R457, R458	5.6K	5.6K	7.5K	7.5K	7.5K	7.5K	7.5K
	R555, R556	X	X	X	X	X	X	X
REC OUT	C485	X	X	X	X	X	X	O
	C481-C483	X	X	X	X	X	X	O
	C481-C483	X	X	X	X	X	X	O
	R481-R486	X	X	X	X	X	X	O
	D483-D484	X	X	X	X	X	X	O
OPT	CN419	X	X	X	X	X	X	O
	R373	1/4W UNF. C.RES	1/4W FUSIBLE RESISTOR					
	D304	O	X	X	X	X	X	X
	TH401	X	O	O	O	O	O	O
	L402	O	O	O	O	O	SHORT	O
	L403	O	O	O	O	O	SHORT	O
	L404	SHORT	SHORT	SHORT	SHORT	O	O	SHORT
	L405	SHORT	SHORT	SHORT	SHORT	O	SHORT	SHORT
	R352	X	X	X	X	O	O	X
	C453, C455	X	X	X	O	X	X	X
	C484	100P	100P	100P	100P	0.0022	100P	100P
	R361	X	X	X	X	X	X	1/4W FUSIBLE RESISTOR

MODEL MX-D402T
MODEL CA-D452TR
MODEL CA-D432TR
MODEL CA-MXD330

■ Tuner Section



*MARK

	C2, C7	C49	C50	R3
J, C	USED	0.039	0.039	SHORT
DDM	SHORT	0.027	0.027	SHORT
U, A	SHORT	0.039	0.039	USED

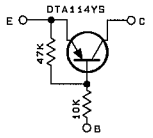
	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL	2.0	0.5	0	2.0	5.2	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.6	3.8	3.8	1.4	0	1.3	1.1	2.0	2.0	5.2	2.0
	FM 60dB STEREO	2.0	0.5	0	2.0	5.2	5.2	1.1	0	0.2	0	0	1.0	1.0	4.5	4.1	3.9	1.4	0	1.2	1.1	2.0	2.0	5.2	2.0
	AM NO SIGNAL	2.0	0.5	0	2.0	5.0	5.2	0	0	0.2	5.2	5.2	1.0	1.0	4.8	2.2	0	1.4	1.4	1.5	1.6	2.0	2.0	5.2	2.0
IC2	FM NO SIGNAL	2.7	0	0	4.9	4.9	4.9	3.8	3.8	2.0	4.1	5.2	0	0	0	0	2.6	5.2	1.0	1.0	3.7	0	2.7		

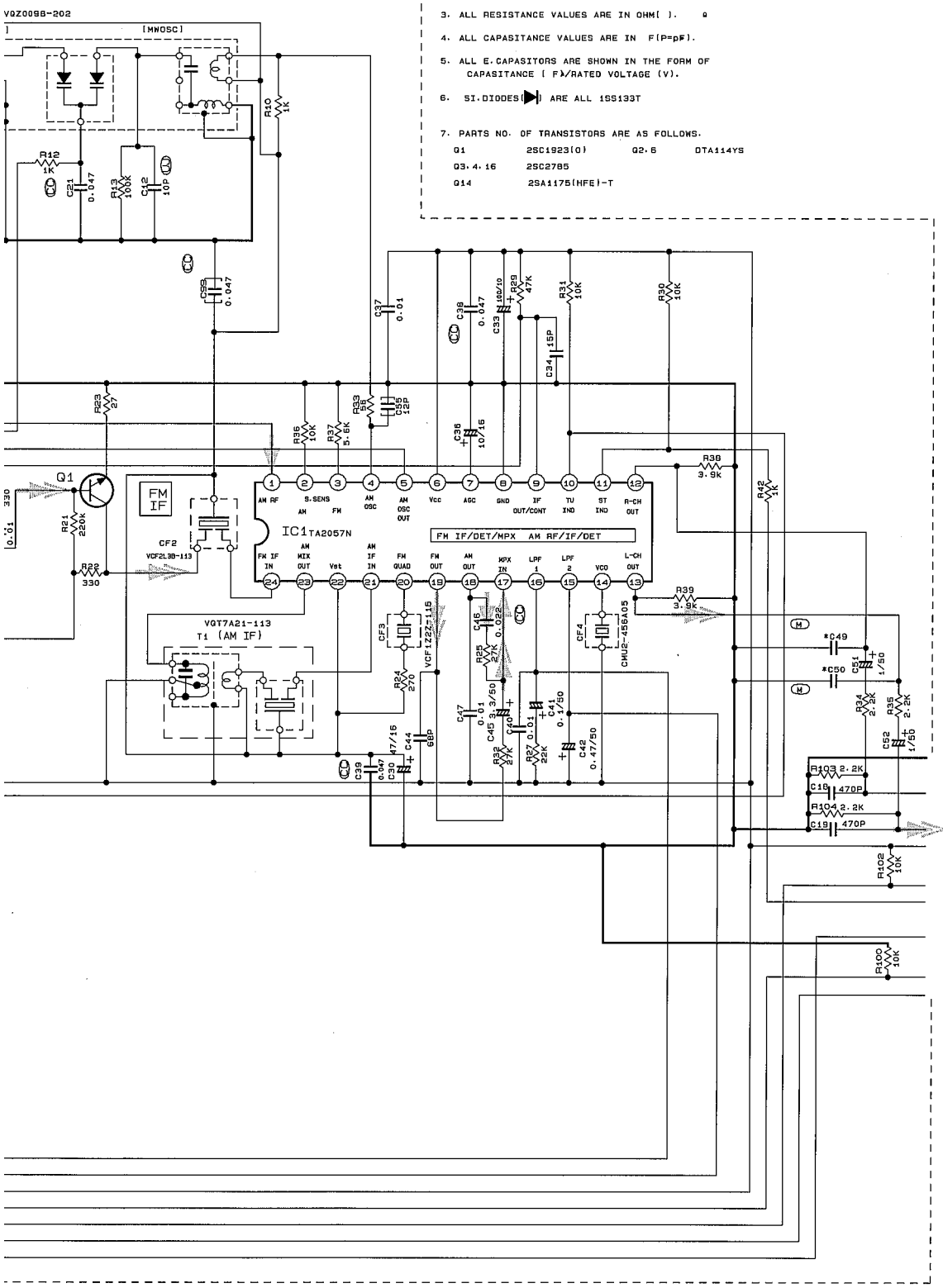
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/6W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM( ). Ω
4. ALL CAPASITANCE VALUES ARE IN F(P=pF).
5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (F)/RATED VOLTAGE (V).
6. SI.DIODES(▶|) ARE ALL 1SS133T
7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.

Q1	2SC1923(O)	Q2.5	DTA114YS
Q3.4.16	2SC2785		
Q14	2SA1175(HFE)-T		

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.





Tr NO.	Q1			Q6			Q16		
PIN NO.	E	C	B	E	C	B	E	C	B
FM 87.5MHz NO SIGNAL	0	8.3	0.8	9.8	9.7	0	1.0	3.5	1.6
AM 522KHz NO SIGNAL	0	0	0	9.8	0	9.7	1.0	3.5	1.6
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7
AM 144KHz NO SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1

AM RADIO SIGNAL

FM/RADIO MAIN SIGNAL

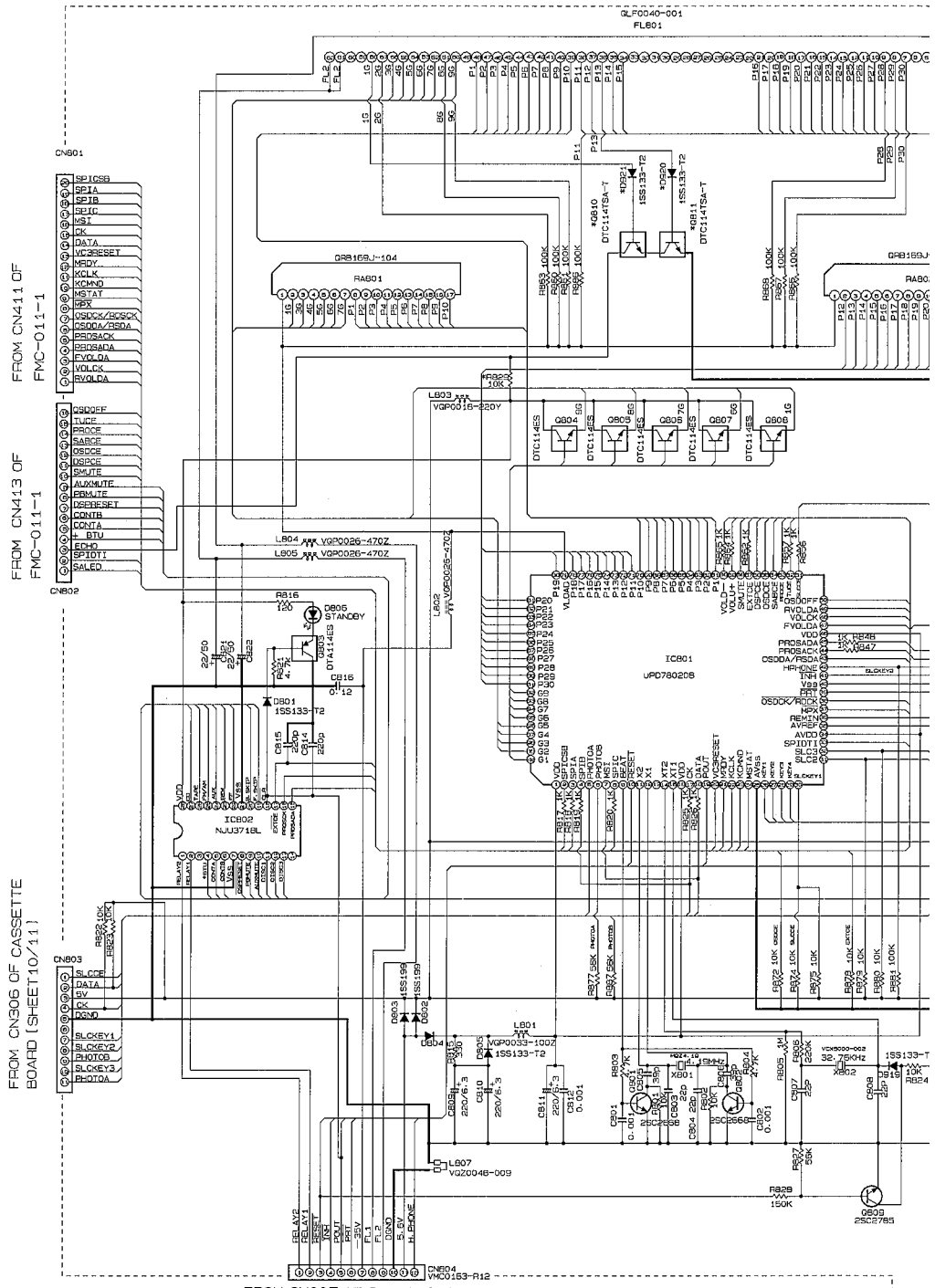
J/C/U/A/DOM

MX-D402T

CA-MXD330

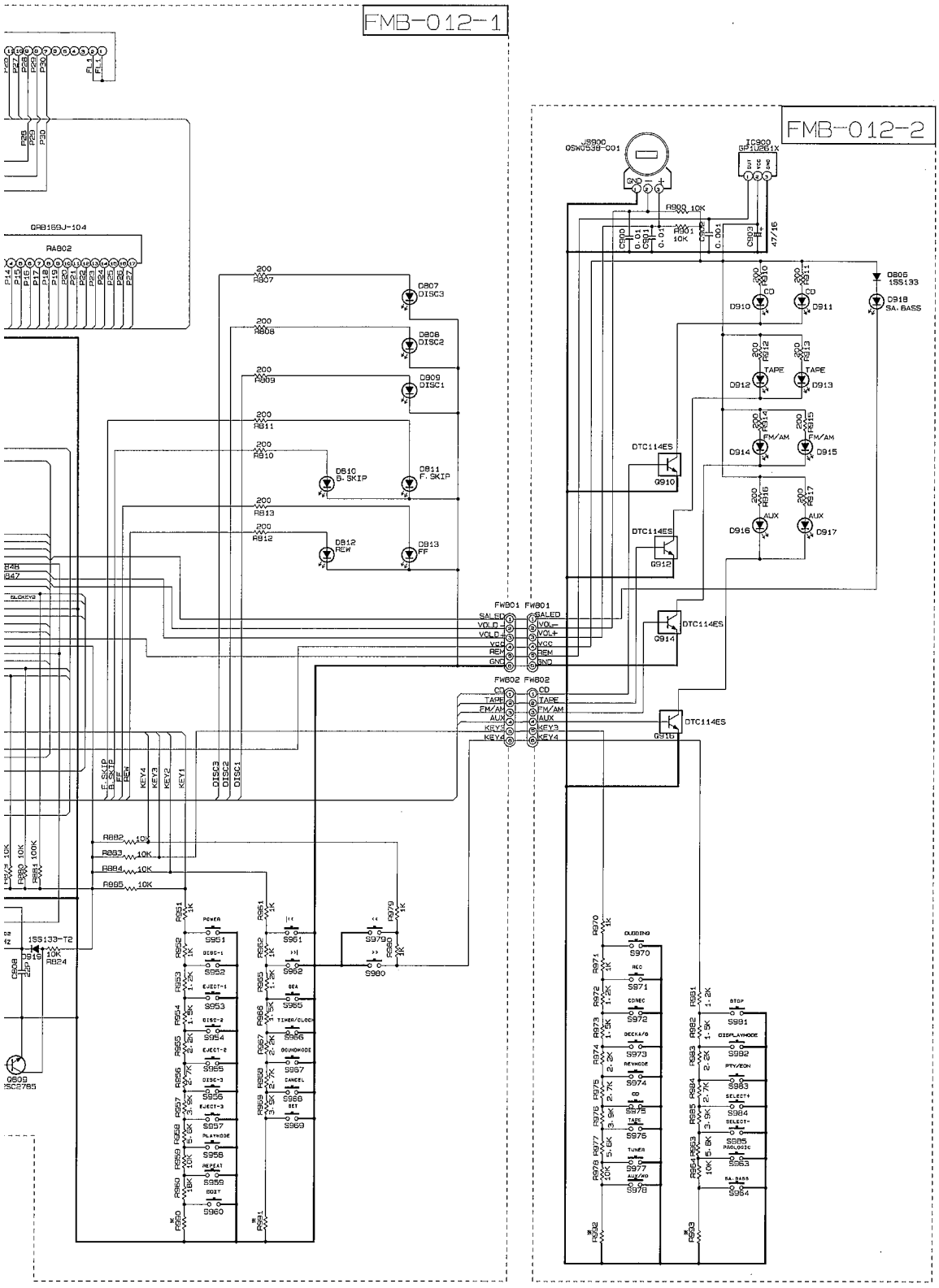
D E F G H

■System Control &Operation Switch Section



*MARK

MODEL	VERSION	R992	R993	R990	R991	S982	S983	S984	S985	S963	Q810/Q811	D920/D921	R829
MX-D402T	J, C	18K	18K	220K	33K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE
	U	18K	68K	220K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	UR	18K	NONE	220K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	A	18K	68K	220K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
CA-D452TR/D432TR	B/E/EN	18K	68K	220K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
	EE	68K	18K	220K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
MX-D502T	J/C	18K	18K	47K	33K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE
CA-D702T	U/UP/US/UT/UX	18K	68K	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	UR	18K	NONE	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
	A	18K	68K	47K	33K	NONE	NONE	NONE	NONE	USED	USED	USED	USED
CA-D752TR	B/E/EN	18K	68K	47K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
	EE	68K	18K	47K	82K	USED	USED	USED	USED	USED	NONE	NONE	NONE
CA-MXD330		68K	68K	220K	82K	NONE	NONE	NONE	NONE	USED	NONE	NONE	NONE

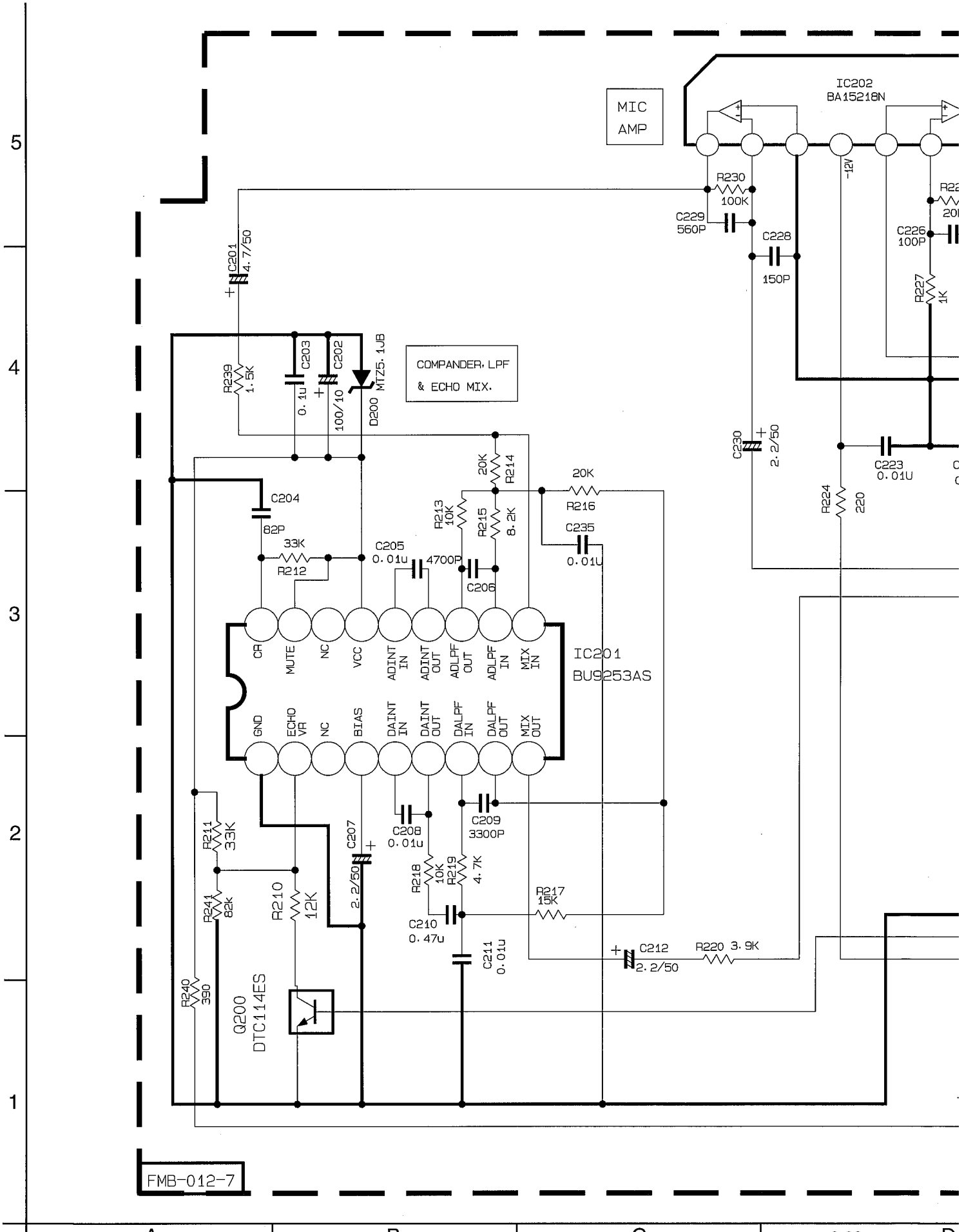


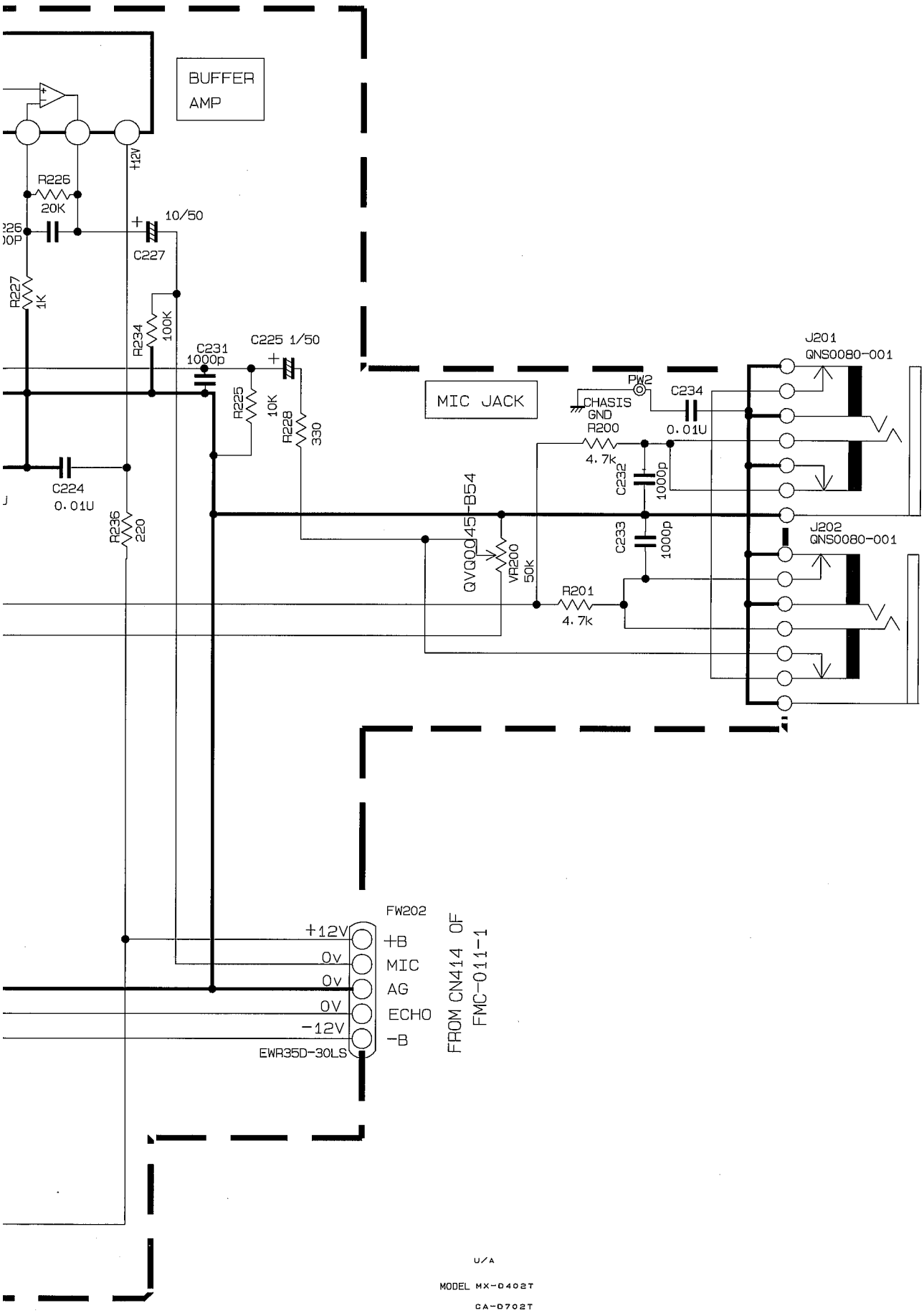
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION —— TAPE PB MODE
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(=mF).
   ALL INDUCTANCE VALUES ARE IN μH(=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   ALL DIODES ARE 1SS133

MODEL MX-D402T
MODEL CA-D452TR
MODEL CA-D432TR
MODEL CA-MXD330
MODEL MX-D502T
MODEL CA-D702T
MODEL CA-D752TR

■ Mic Section


MIC AMP
IC202 BA15218N
-12V
R230 100K
C229 560P
C228 150P
C201 4.7/50
R239 1.5K
C203 0.1u
C202 100/10
D200 MTZ5.1JB
COMPANDER, LPF & ECHO MIX.
C230 2.2/50
C223 0.01U
R224 220
R227 1K
C226 100P
20K R214
20K R216
C235 0.01U
R213 10K
R215 8.2K
C204 82P
33K R212
C205 0.01u
4700P
C206
IC201 BU9253AS
CR MUTE NC VCC ADINT IN ADINT OUT ADLPF OUT ADLPF IN MIX IN
GND ECHO VR NC BIAS DAINT IN DAINT OUT DALPF IN DALPF OUT MIX OUT
C208 0.01u
C209 3300P
C207 2.2/50
R211 33K
R241 82k
R210 12K
R218 10K
R219 4.7K
R217 15K
C210 0.47u
C211 0.01u
C212 2.2/50
R220 3.9K
R240 390
Q200 DTC114ES
FMB-012-7



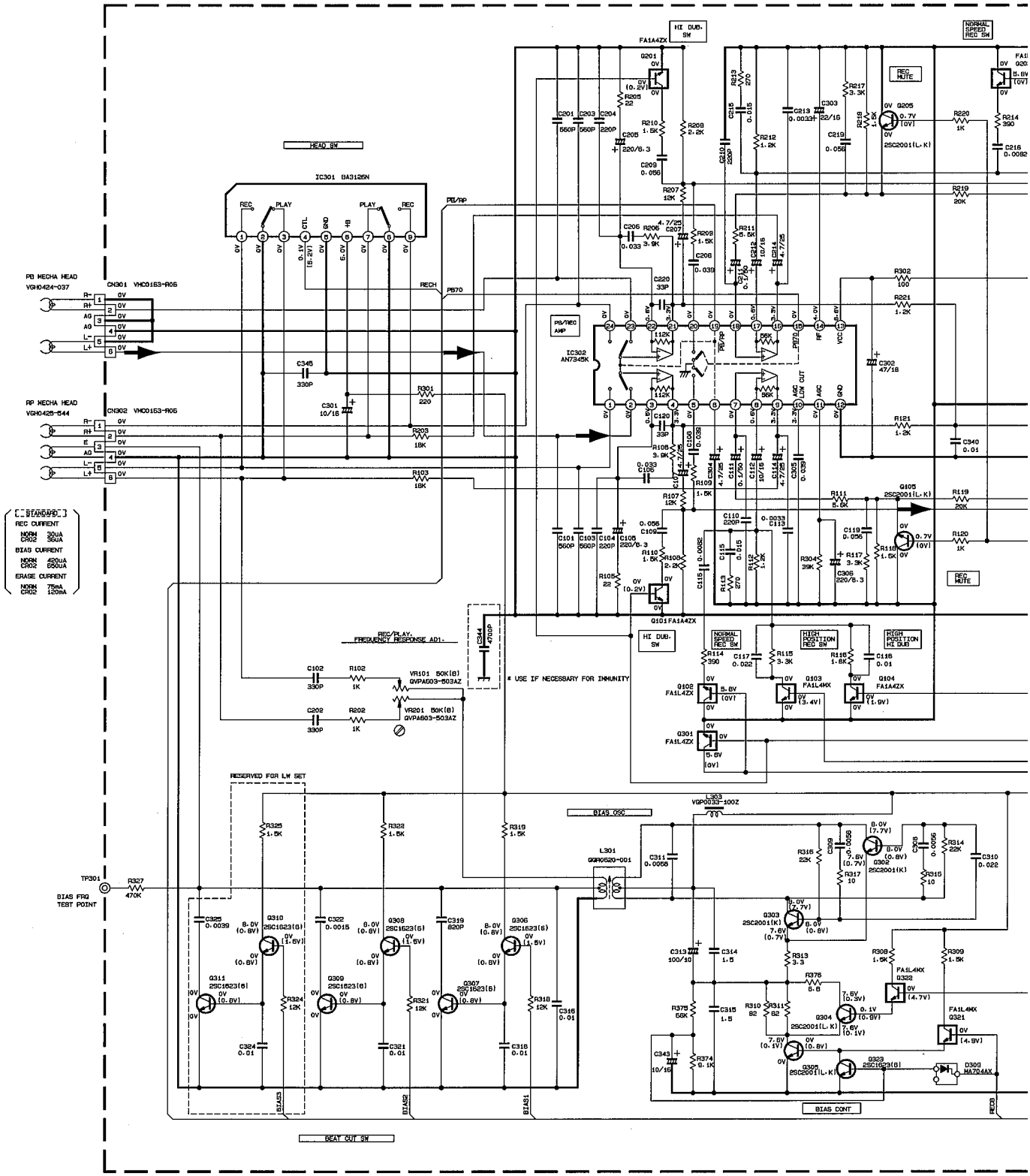
U/A

MODEL MX-0402T

CA-0702T

D | E | F | G | H

■Head Amplifier & Machanism Control Section

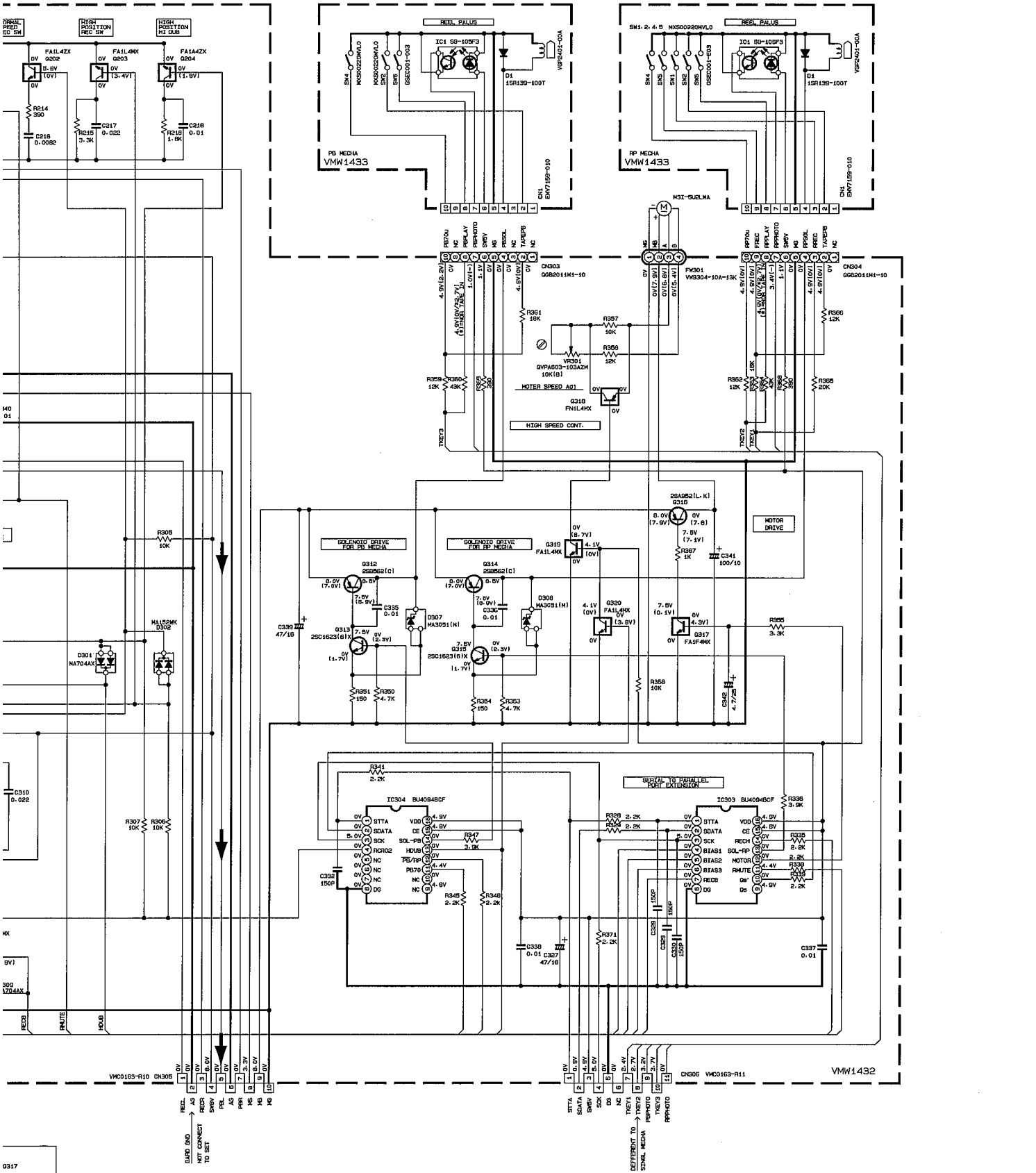


NOTES

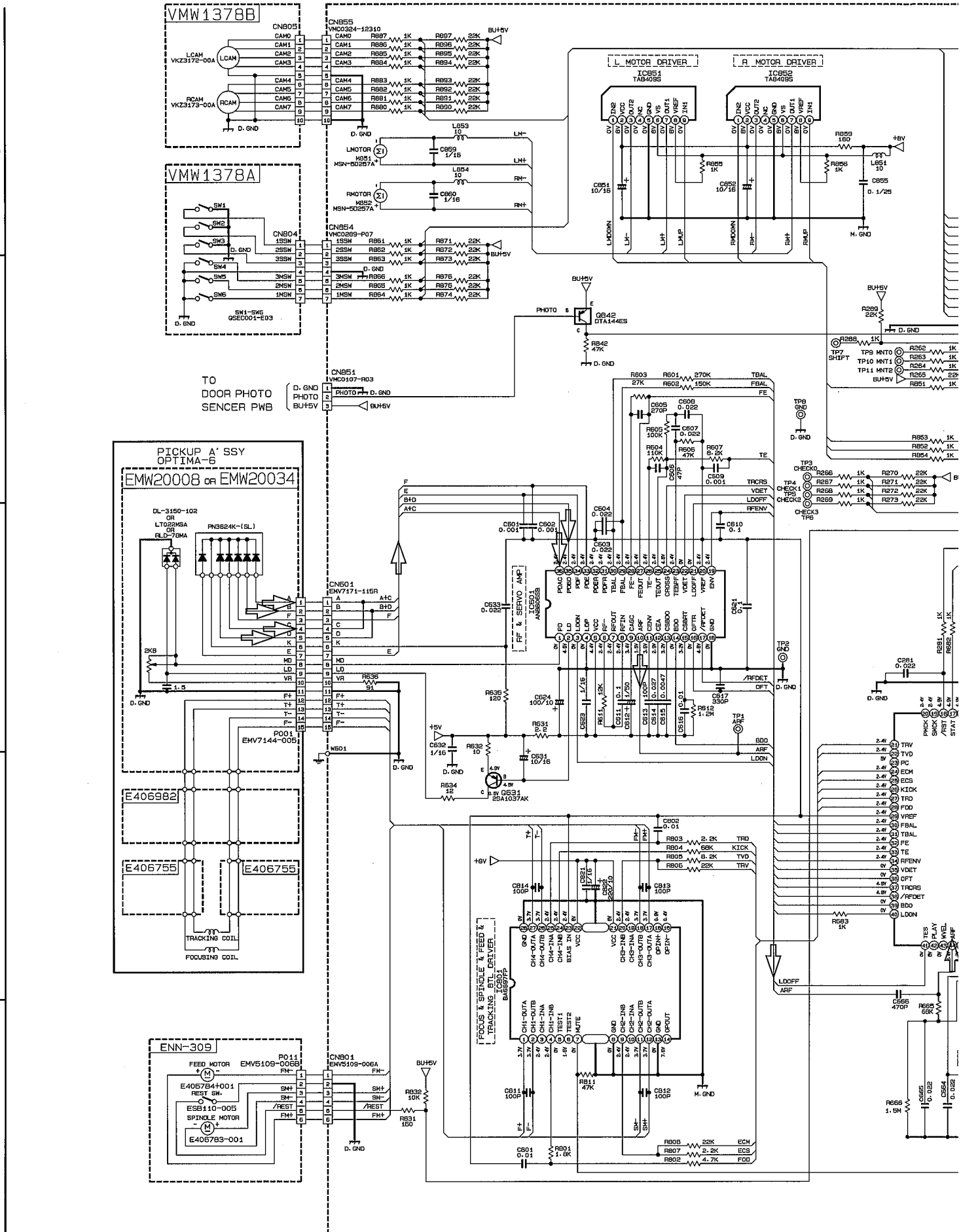
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. [ ] IS INVERT MODE
2. UNLESS OTHERWISE SPECIFIED
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   PP PLYPROPYLENE CAPACITOR

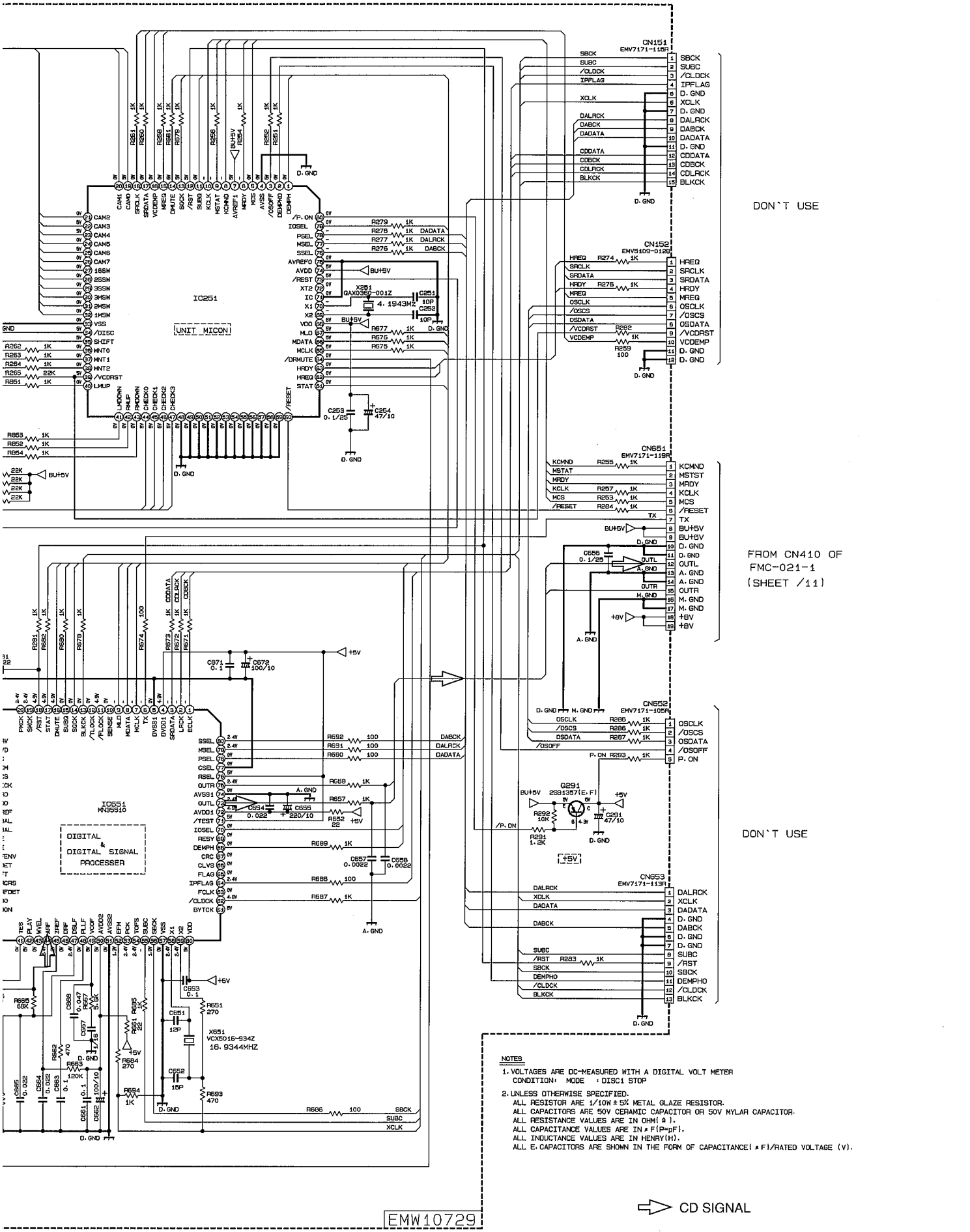
TABLE 1. DIGITAL TR LIST

PART. NO	CONSTRUCTION	REF. NO			
FN1L4M	47K 47K	Q318	FA1F4M	22K 22K	Q317
FA1A4Z	10K	Q101/Q201 Q104/Q204	FA1L4M	47K 47K	Q103/Q203 Q319 Q320/Q321/Q322
FA1L4Z	47K	Q102/Q202 Q301			

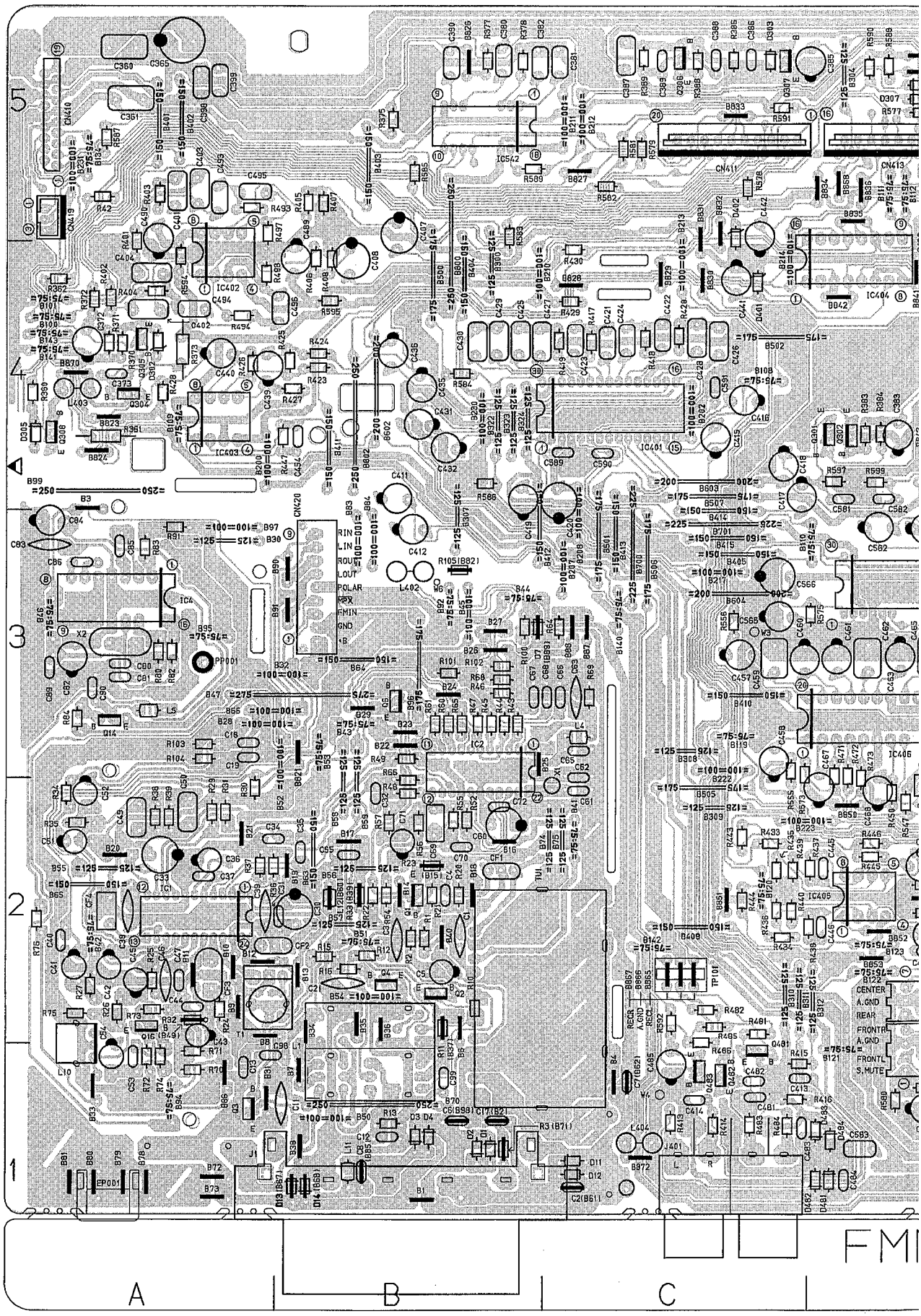

HIGH POSITION REC SW
HIGH POSITION HI DUB
REEL PULSE
PB MECHA VMW1433
RP MECHA VMW1433
HIGH SPEED CONT.
MOTER SPEED Adj
SOLENOID DRIVE FOR PB MECHA
SOLENOID DRIVE FOR RP MECHA
MOTOR DRIVE
SERIAL TO PARALLEL PORT EXTENSION
IC304 BU4094BCF
IC303 BU4094BCF
VMW1432
TAPE.PB/MAIN SIGNAL

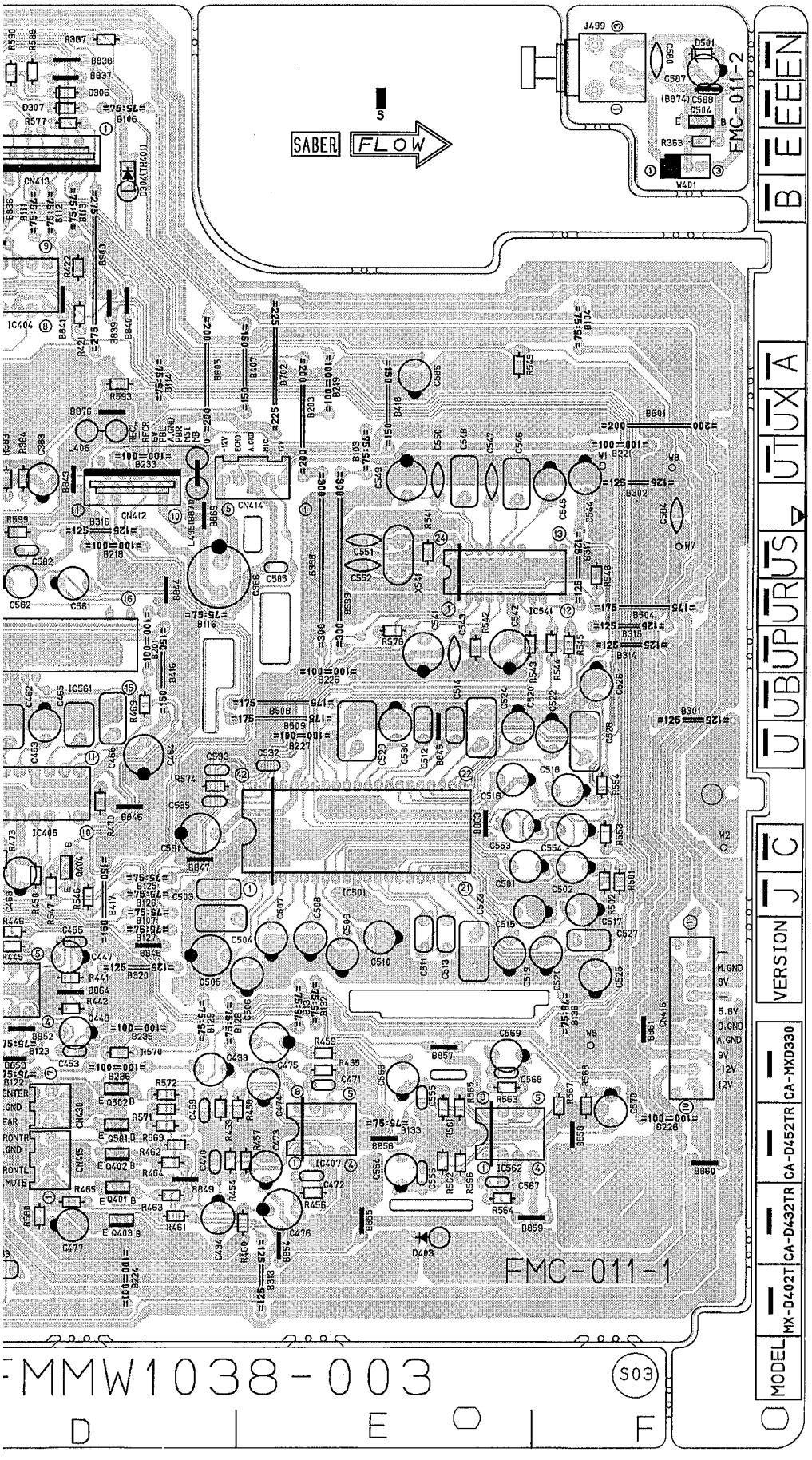
■ CD Servo & Changer Machanism Control Section



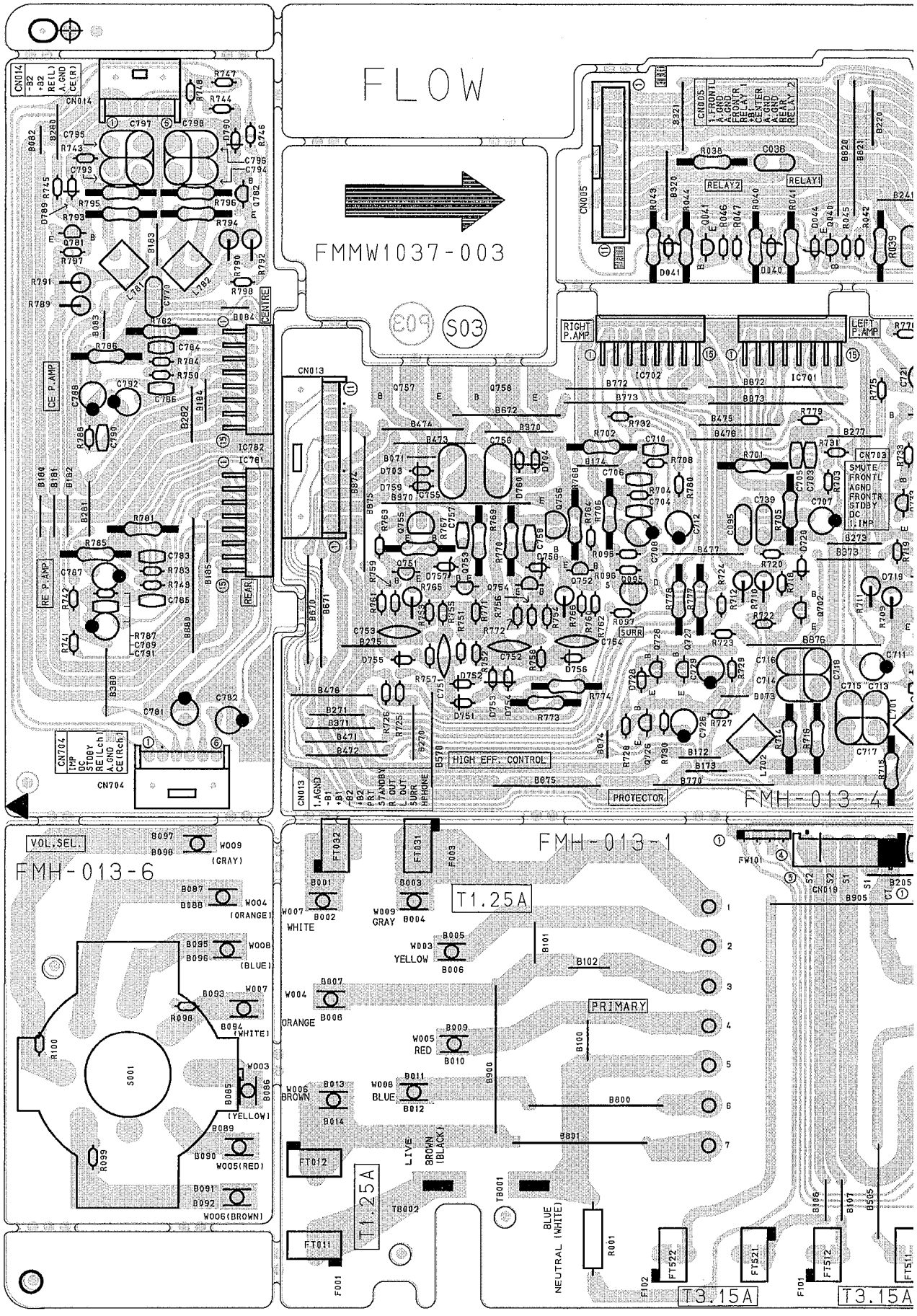

CN151
EMV7171-115R
SBCK
SUBC
/CLOCK
IPFLAG
D. GND
XCLK
D. GND
DALRCK
DABCK
DADATA
D. GND
CDDATA
CDBCK
CDLRCK
BLKCK
D. GND
DON`T USE
CN152
EMV5109-012R
HREQ
SRCLK
SRDATA
HRDY
MREQ
OSCLK
/OSCS
OSDATA
/VCDRST
VCDEMP
D. GND
D. GND
D. GND
IC251
UNIT MICON
X251
QAX0360-001Z
4.1943MZ
BU+5V
D. GND
CN651
EMV7171-119R
KCMND
MSTST
MRDY
KCLK
MCS
/RESET
TX
BU+5V
BU+5V
D. GND
D. GND
OUTL
A. GND
A. GND
OUTR
M. GND
M. GND
+8V
+8V
A. GND
FROM CN410 OF
FMC-021-1
(SHEET /11)
CN652
EMV7171-105R
OSCLK
/OSCS
OSDATA
/OSOFF
P. ON
D. GND
M. GND
IC651
MN35510
DIGITAL
&
DIGITAL SIGNAL
PROCESSER
Q291
2SB1357(E,F)
BU+5V
+5V
/P. ON
D. GND
DON`T USE
CN653
EMV7171-113R
DALRCK
XCLK
DADATA
D. GND
DABCK
D. GND
D. GND
SUBC
/RST
SBCK
DEMPHO
/CLOCK
BLKCK
D. GND
X651
VCX5016-934Z
16.9344MHZ
D. GND
A. GND
NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITION: MODE : DISC1 STOP
2. UNLESS OTHERWISE SPECIFIED.
ALL RESISTOR ARE 1/10W ± 5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITANCE VALUES ARE IN μF(P=pF).
ALL INDUCTANCE VALUES ARE IN HENRY(H).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
CD SIGNAL
EMW10729
D
E
F
G
H

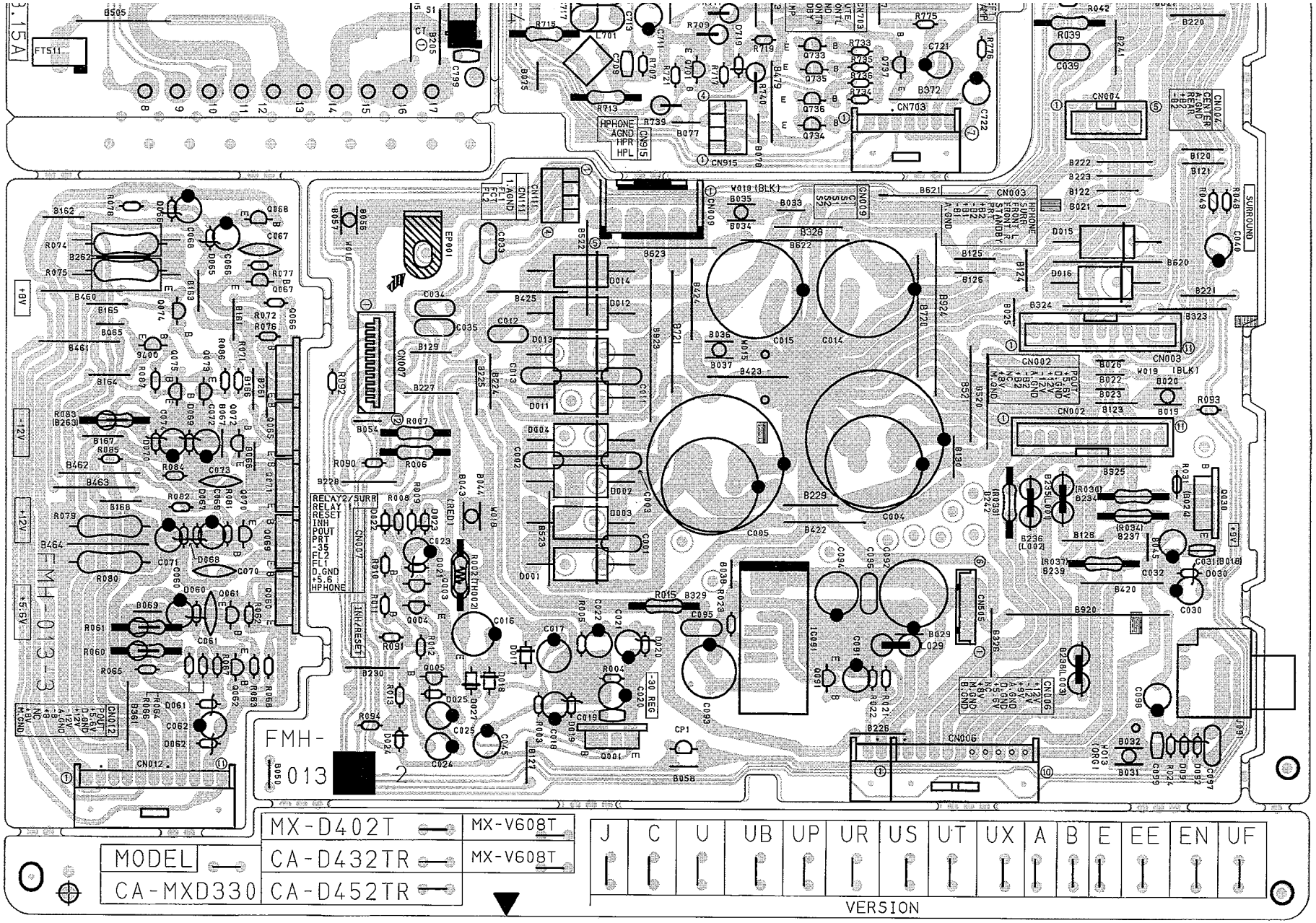
■Main Amplifier & Tuner : Block No, 0 2



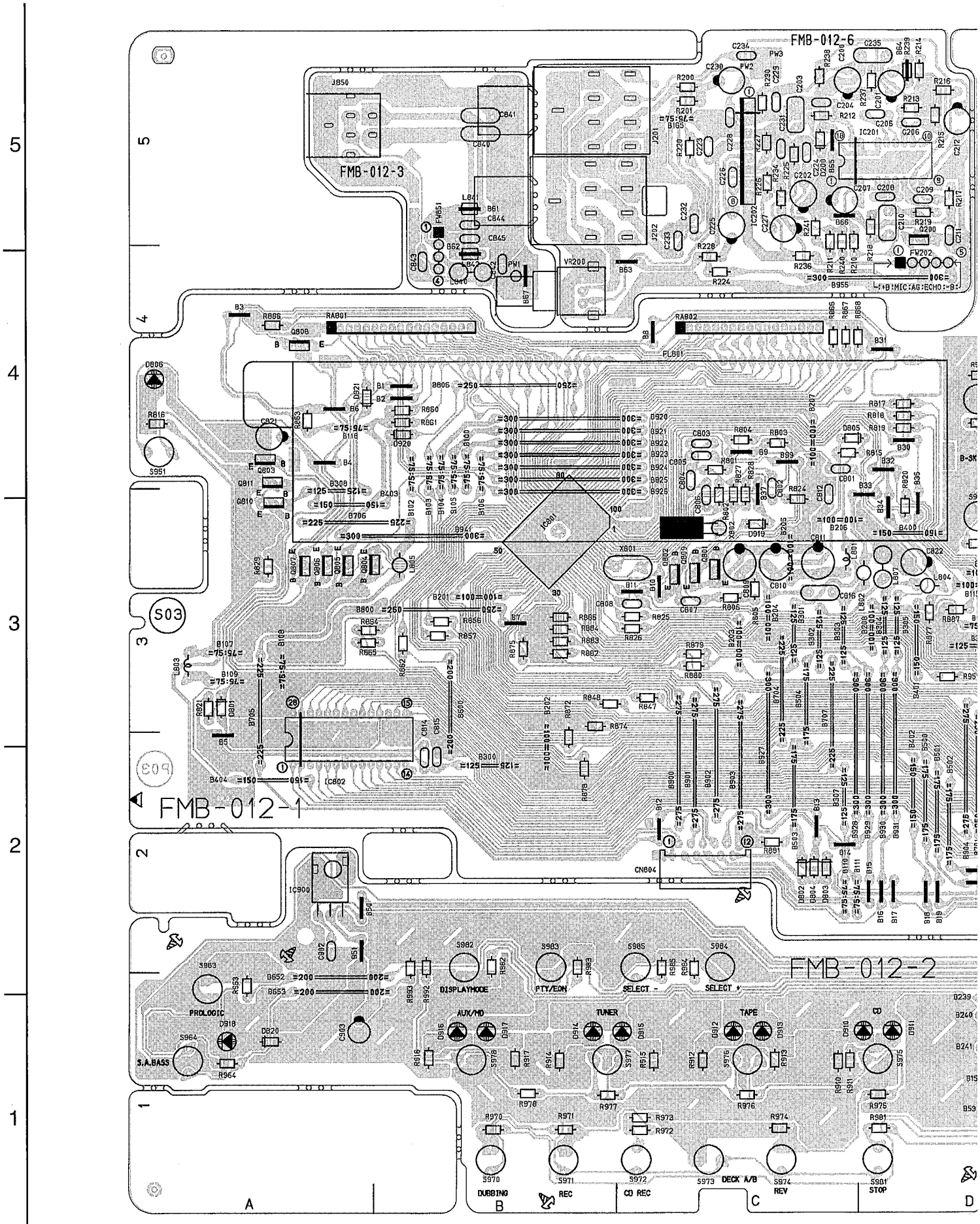

SABER FLOW
FMC-011-2
FMC-011-1
MMW1038-003
MODEL
MX-D402T
CA-D432TR
CA-D452TR
CA-MXD330
VERSION
J C
UBUPURUS UTUX A
BEEEN

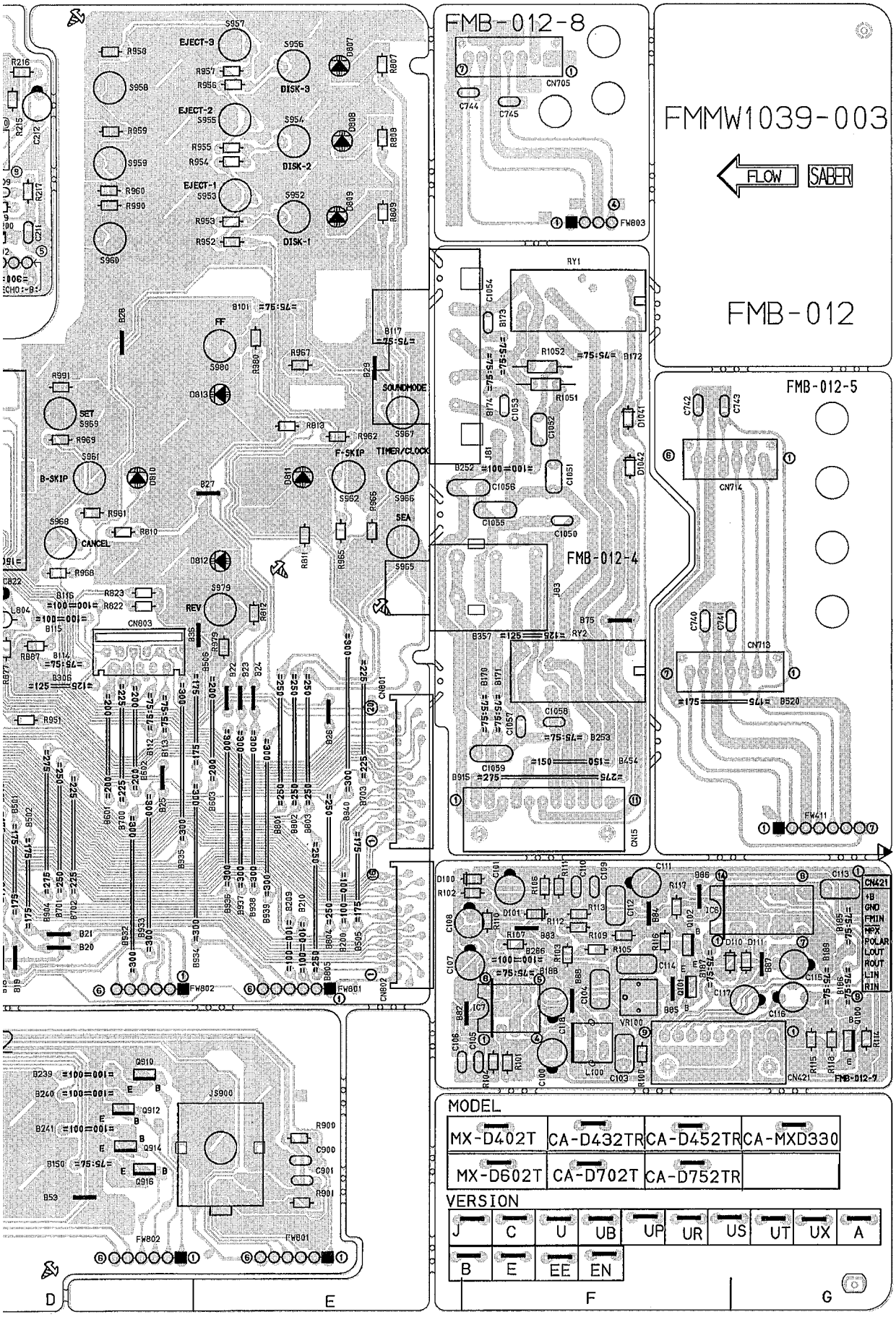
■ Power Supply & Power Amplifier Board : Block No, 0 1



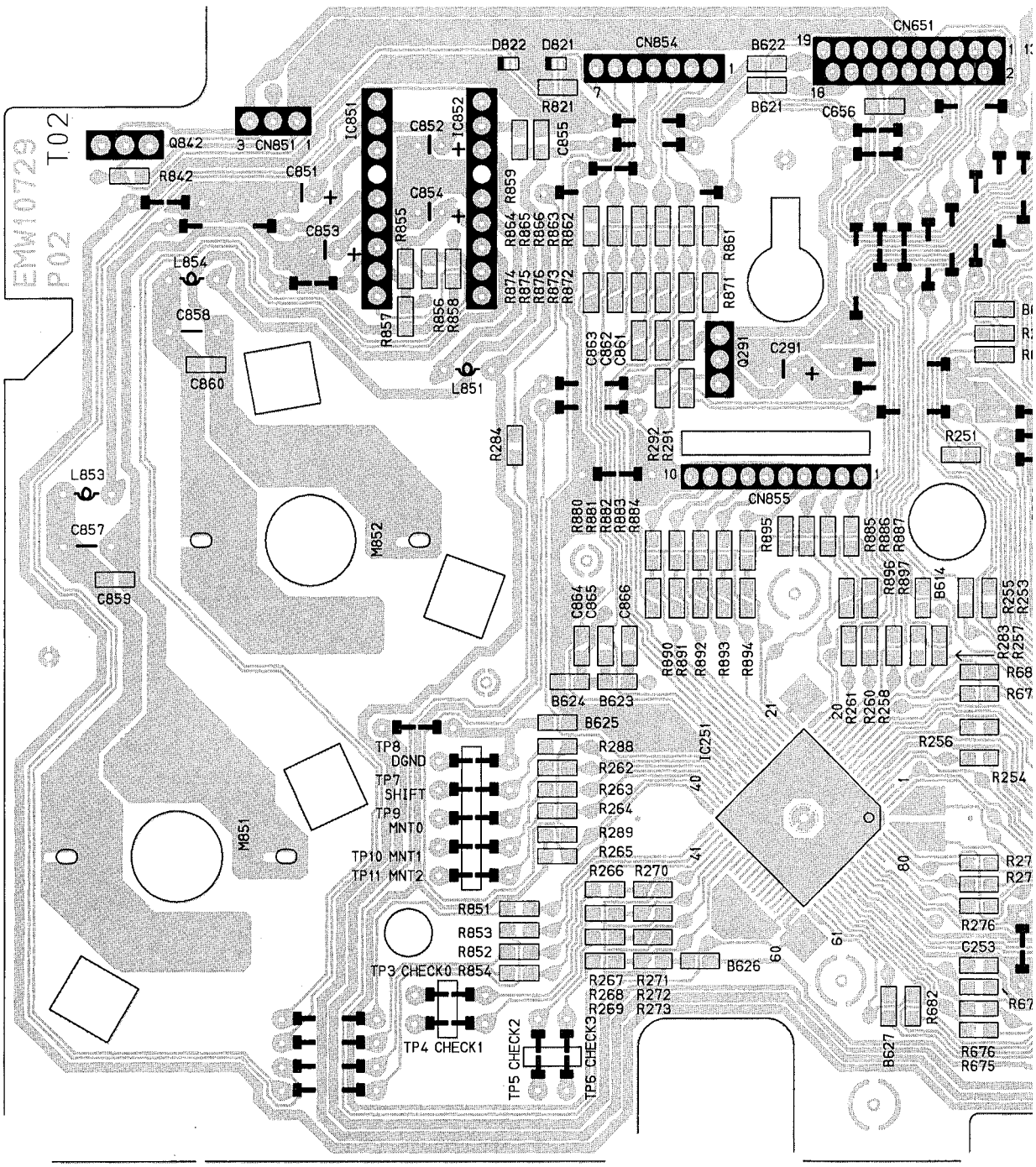

FMH-013-3
FMH-013-2
MODEL
CA-MXD330
MX-D402T
CA-D432TR
CA-D452TR
MX-V608T
MX-V608T
J C U UB UP UR US UT UX A B E EE EN UF
VERSION

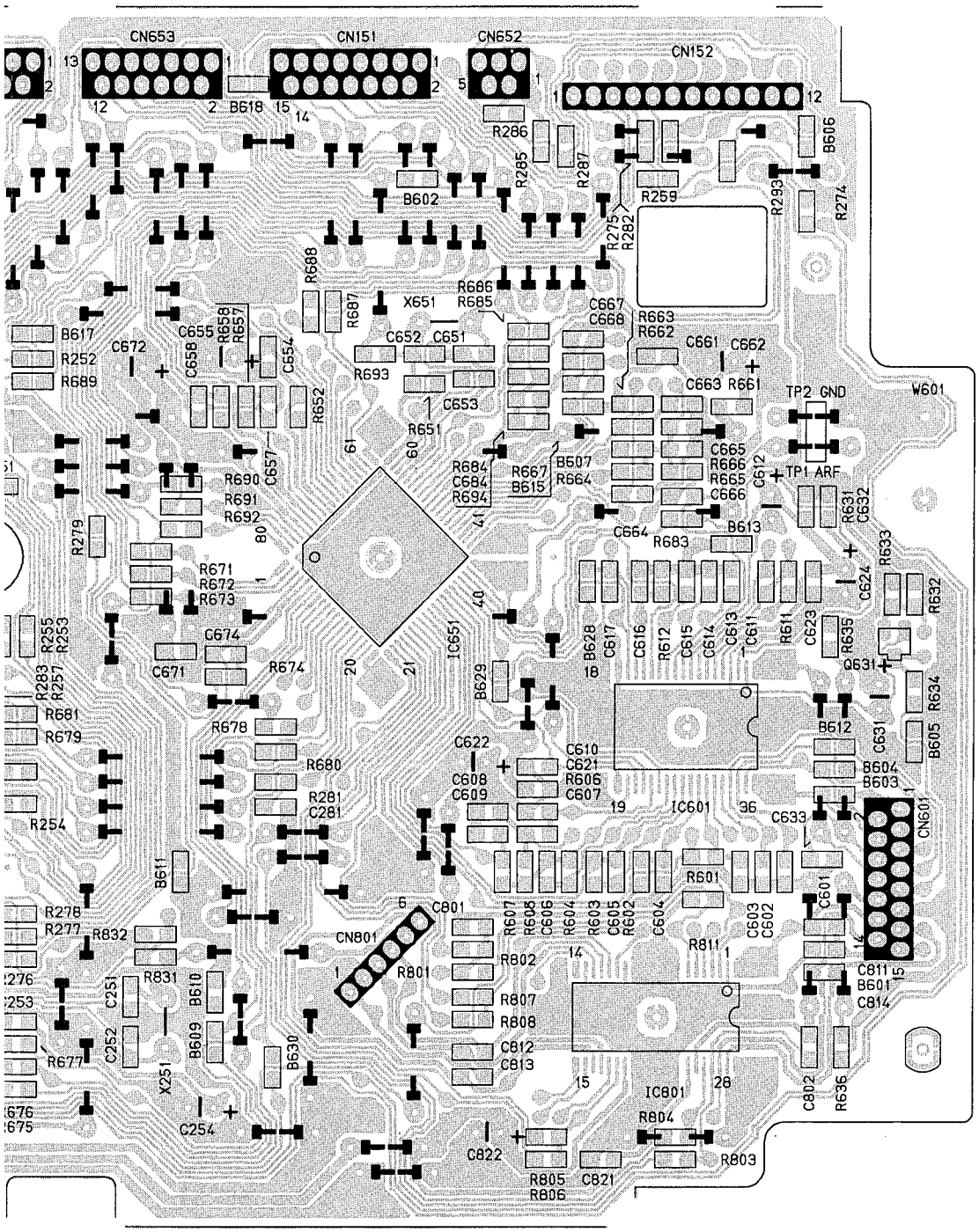
■System CPU & Operation Switch Board : Block No, 0 3




FMB-012-8
FMMW1039-003
FLOW
SABER
FMB-012
FMB-012-5
FMB-012-4
FMB-012-7
EJECT-3
EJECT-2
EJECT-1
DISK-3
DISK-2
DISK-1
SOUNDMODE
F-SKIP
TIMER/CLOCK
B-SKIP
CANCEL
SEA
REV
FF
SET
MODEL
MX-D402T
CA-D432TR
CA-D452TR
CA-MXD330
MX-D602T
CA-D702T
CA-D752TR
VERSION
J
C
U
UB
UP
UR
US
UT
UX
A
B
E
EE
EN

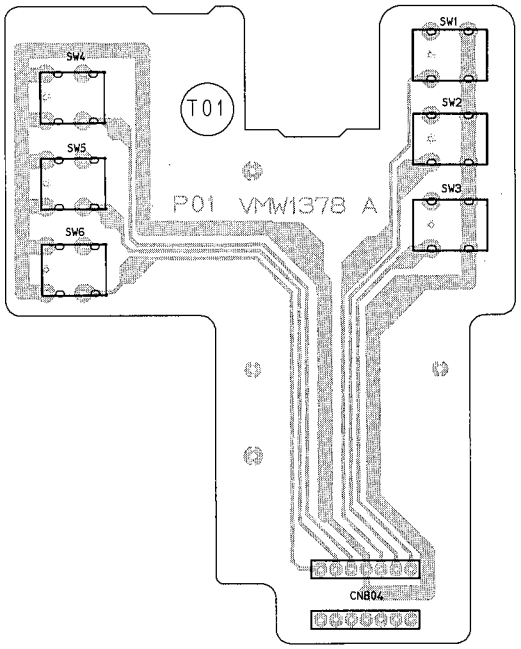
■CD Servo & Mechanism Control Board : Block No, 0 4



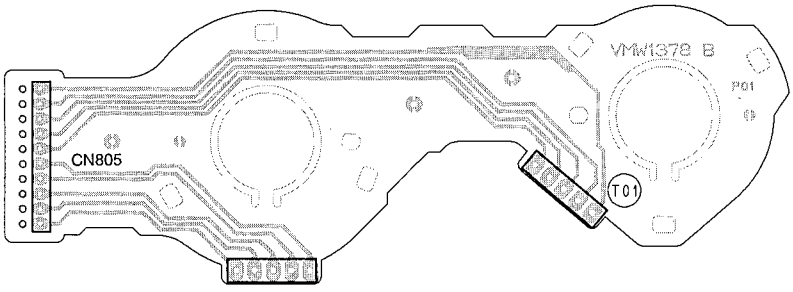

CN653
CN151
CN652
CN152
B618
B602
B606
R286
R285
R297
R259
R293
R274
R275
R282
R688
R687
X651
R686
R685
C667
C668
R663
R662
C661
C662
C652
C651
R693
C653
R651
C663
R661
TP2
GND
W601
B617
R252
R689
C672
C655
R658
R657
C658
C654
R652
C657
R690
R691
R692
R684
C684
R694
R667
B615
B607
R664
C665
R666
R665
C666
C612
TP1
ARF
R631
C632
C664
R683
B613
R633
C624
R632
R279
R671
R672
R673
C674
C671
R674
R255
R253
R283
R251
R681
R679
R678
R680
R281
C281
R254
C651
B629
B628
C617
C616
R612
C615
C614
C613
C611
R611
C623
R635
Q631
R634
B612
C631
B605
C622
C610
C621
R606
C607
C608
C609
B604
B603
IC601
C633
CN601
R601
C601
B611
C801
CN801
R801
R607
R608
C606
R604
R603
C605
R602
C604
R811
C603
C602
R278
R277
R832
R802
R807
R808
C812
C813
C811
B601
C814
R831
C251
B610
C252
B609
B630
R677
X251
C254
IC801
C802
R636
R804
R803
C822
R805
R806
C821

D E F G H

■ CD Tray Select Board : Block No, [0] [5]



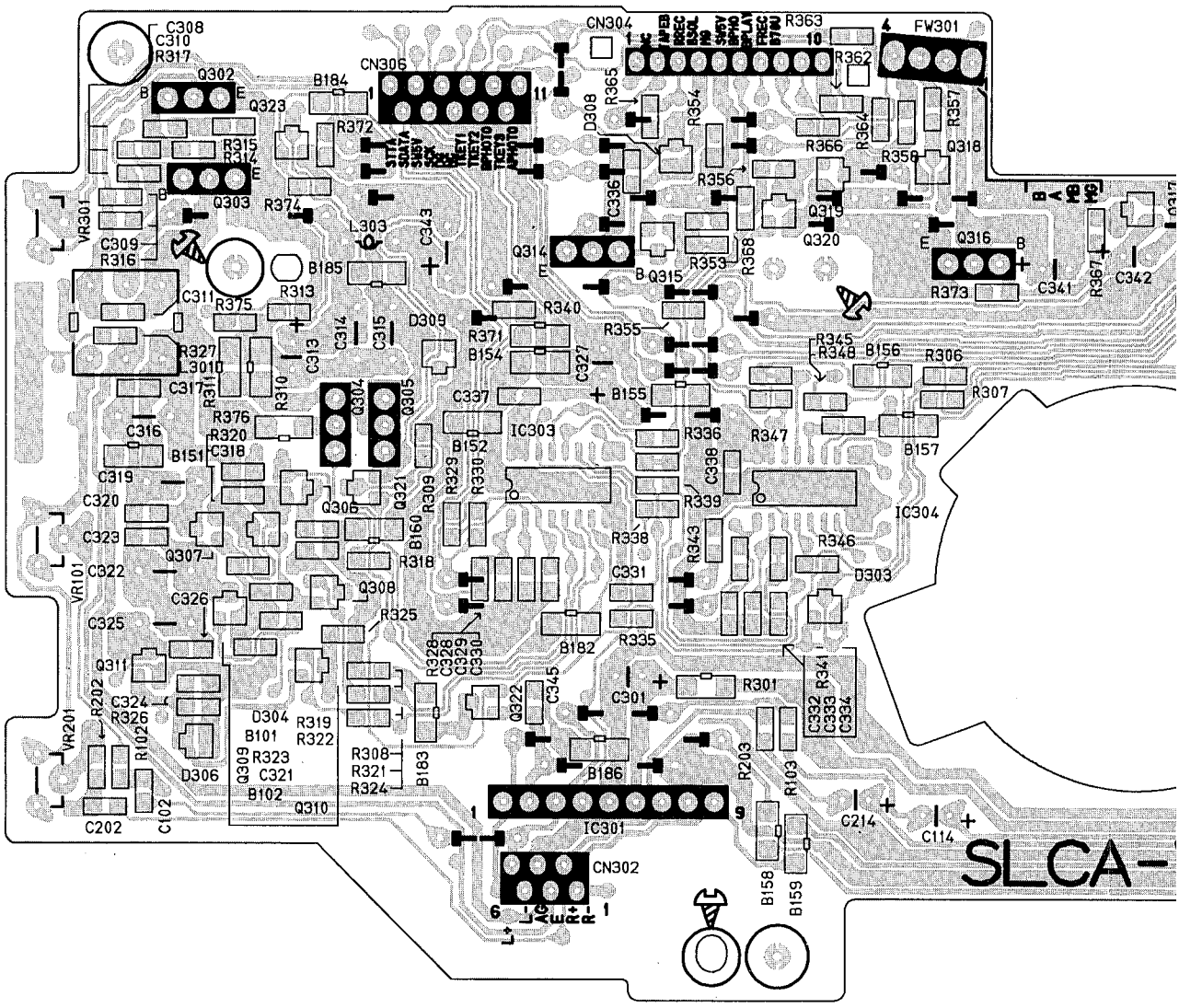
■ Cam Switch board



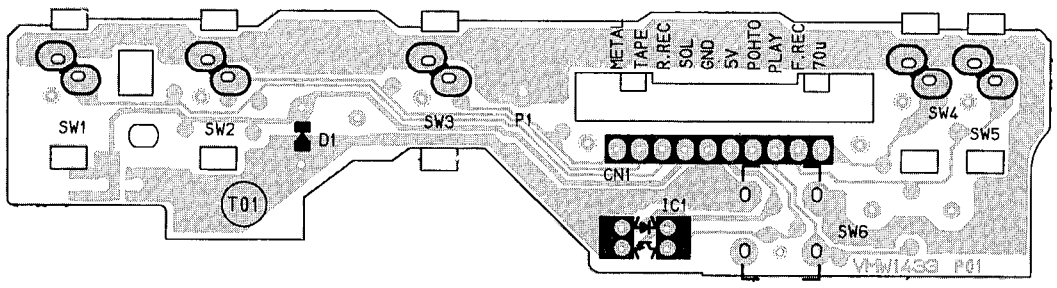
5 4 3 2 1

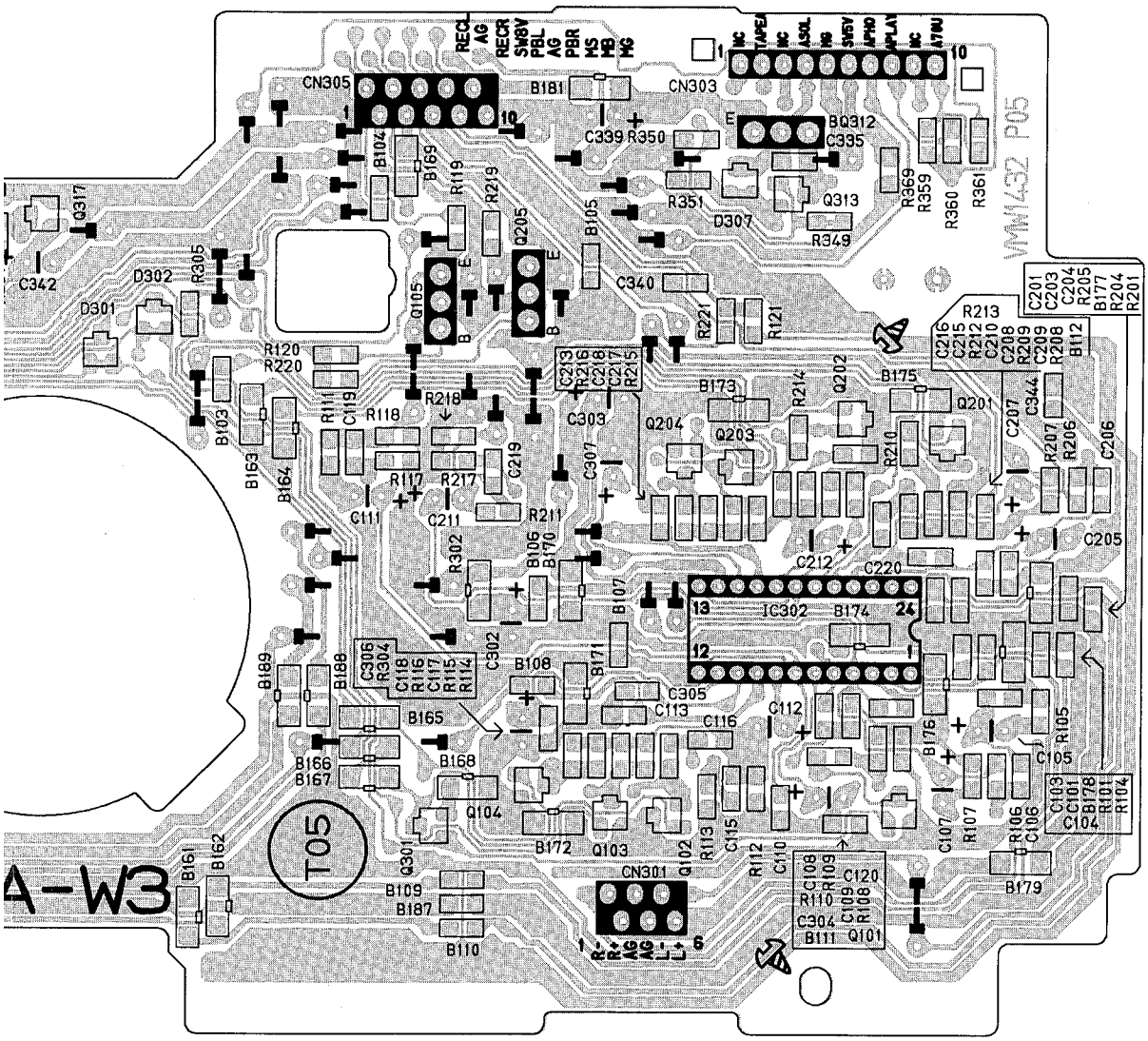
A B C D

■Head Amplifier & Mechanism Control Board : Block No, 0 6



■Reel Pulse Board : Block No, 0 7 0 8




CN305
CN303
CN301
IC302
T05
A-W3
VM1432 P05

PARTS LIST

[MX-D402T]

* All printed circuit boards and its assemblies are not available as service parts.

Area Suffix	
A	Australia
U	Other Areas
UB	Hong Kong
UP	Korea
US	Singapore
UT	Taiwan
UX	Saudi Arabia
J	U.S.A
C	Canada

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(Reel Pulse) 3-26
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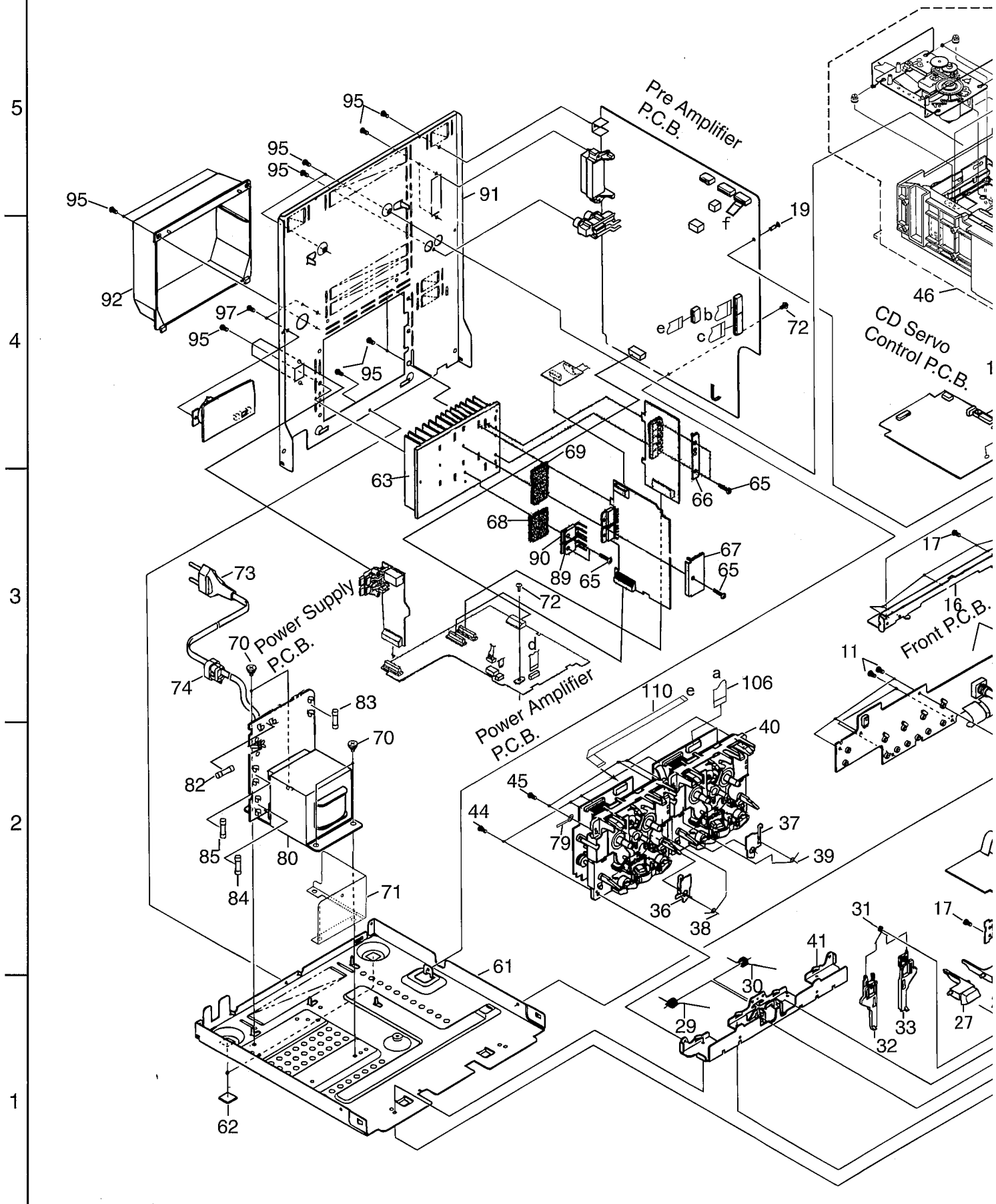
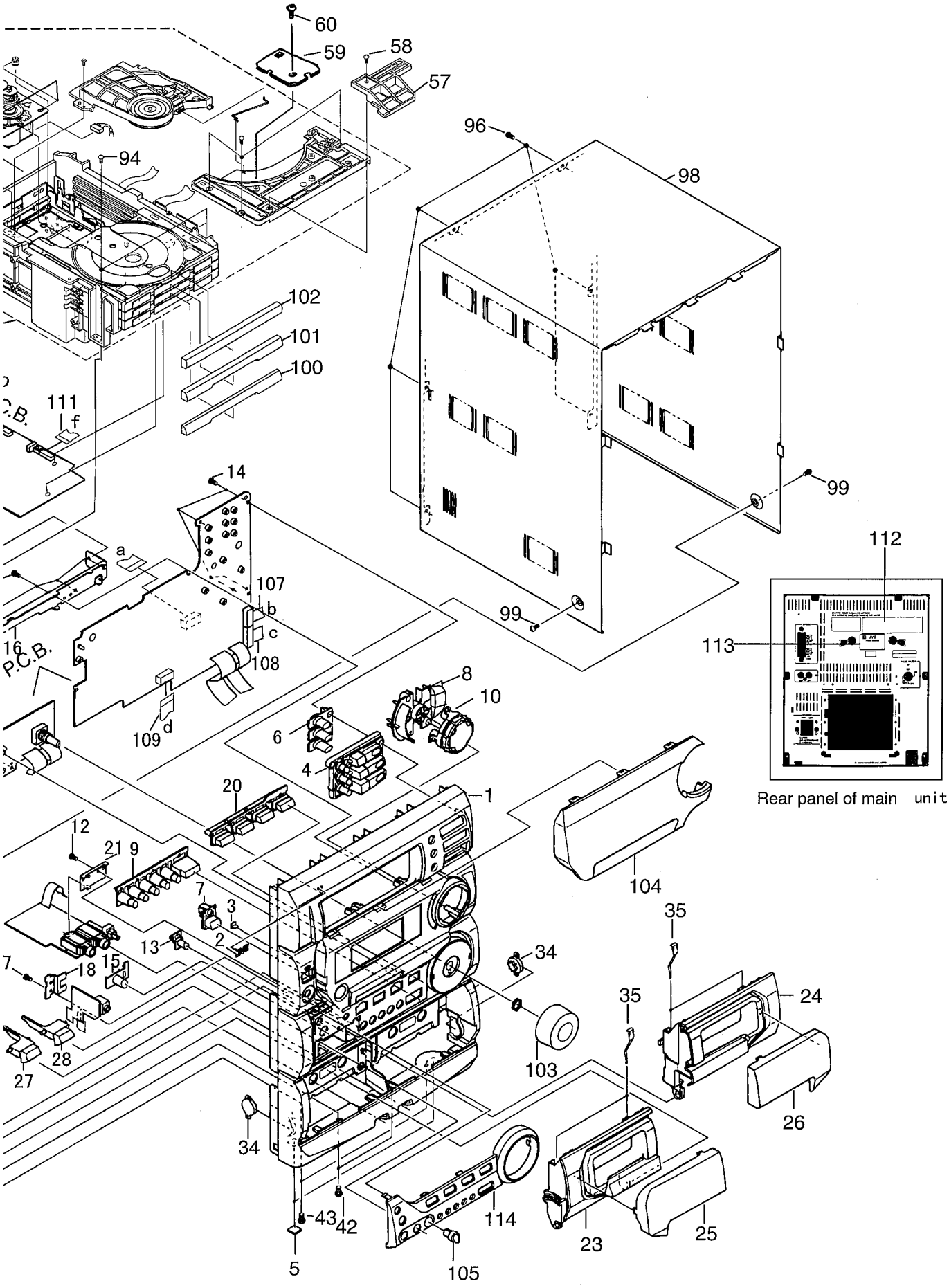
-MEMO-

General Exploded View and Parts List

Block No. M 1 M M



A | B | C | D



Rear panel of main unit

BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	GV10001-005AKP	FRONT PANEL		1	U,UT,UX	
		GV10001-004AKP	FRONT PANEL		1	C,J	
		GV10001-005AKP	FRONT PANEL		1	A,UB,UP,US	
	2	E406971-001SM	JVC MARK		1		
	3	GV40003-001AKP	STBY.INDICATOR		1		
	4	GV20009-002AKP	CD BUTTON		1		
	5	E75896-001	SPACER		2		
	6	GV30008-001AKP	DISC BUTTON	ATTACH TO CD BT	1		
	7	GV30010-003AKP	POWER BUTTON	ON/STANDBY MARK	1	C,J	
		GV30010-004AKP	POWER BUTTON	ON/STANDBY MARK	1	A,UB,U,UP	
		GV30010-004AKP	POWER BUTTON	ON/STANDBY MARK	1	US,UT,UX	
	8	GV20006-001AKP	SOUND BUTTON		1		
	9	GV30009-002AKP	CONTROL BUTTON		1		
	10	GV30018-002BKP	SEARCH BTN.ASSY		1		
	11	SDSF2608Z	SCREW	SWITCH BOARD	5		
	12	SDSF2608Z	SCREW	MIC BKT.+F.PANE	1	A,U,UB,UP	
		SDSF2608Z	SCREW	MIC BKT.+F.PANE	1	US,UT,UX	
	13	GV30016-002AKP	PUSH BUTTON		1		
	14	SDSF2608Z	SCREW	MICOM BOARD	4		
	15	GV30017-002AKP	PUSH BUTTON		1		
	16	GV30003-001AKP	STAY BRACKET		1		
	17	SDSF2608Z	SCREW		7		
	18	GV40001-001AKP	H.P BRACKET		1		
	19	FMYH4004-001	PLASTIC RIVET	MAIN BOARD&BKT.	1		
	20	GV30013-001AKP	SOURCE BUTTON		1		
	21	GV40004-001AKP	MIC BRACKET		1	A,U,UB,UP	
		GV40004-001AKP	MIC BRACKET		1	US,UT,UX	
	23	GV20001-004AKP	CASS HOLDER(L)		1		
	24	GV20002-004AKP	CASS HOLDER(R)		1		
	25	GV20003-001AKP	CASS LENS (L)		1		
	26	GV20004-001AKP	CASS LENS (R)		1		
	27	GV30014-005AKP	EJECT BUTTON(A)		1		
	28	GV30015-005AKP	EJECT BUTTON(B)		1		
	29	FMKW4009-001	HOLDER SPRING A		1		
	30	FMKW4010-001	HOLDER SPRING B		1		
	31	FMKW4011-001	SPRING	FOR EJECT LEVER	1		
	32	FMKS3002-002KP	EJECT LEVER(A)		1		
	33	FMKS3003-002KP	EJECT LEVER(B)		1		
	34	VYH7779-00B	DUMPER ASS'Y		2		
	35	VKY4180-001	CASSETTE SPRING		4		
	36	FMKL4012-003	EJECT SAFETY(A)		1		
	37	FMKL4013-001	EJECT SAFETY(B)		1		
	38	FMKW4007-001	SPRING (A)	EJECT SAFETY A	1		
	39	FMKW4008-001	SPRING (B)	EJECT SAFETY B	1		
	40	----------	CASSETTE MECHA		1		
	41	FMKL2002-001	HOLDER BRACKET		1		
	42	SBSG3010Z	T.SCREW	F.P.TO H.BRKT.	2		
	43	SBSG3010Z	T.SCREW	F.P.TO CHS.BASE	2		
	44	SBSG3010Z	T.SCREW	MECHA & H.BRKT.	4		
	45	SBSF3010Z	SCREW	MECHA & F.PANEL	4		
	46	----------	VIDEO 3CD CHANG		1		
	57	E309662-001	DISC STOPPER		1		
	58	SBSF3008Z	SCREW	FOR DISC STOPPE	1		
	59	FMKL4008-001	ROD STOPPER	FOR C VERSION	1	C,J	
	60	SBSF3008Z	SCREW	FOR LOD STOPPER	1	C,J	

BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	61	GV10003-001AKP	CHASSIS BASE		1		
	62	E75896-006	FELT SPACER	CHAS.BASE FOOT	2		
	63	GV30006-001AKP	HEAT SINK		1		
	65	SBSG3014CC	T.SCREW		5		
	66	E406969-002SM	LEAF SPRING		1		
	67	FMKL4007-001	BRACKET	FOR POWER IC	1		
	68	FMPK4004-001	MICA SHEET		1		
	69	FMPK4003-001	MICA SHEET		1		
	70	QYSDSTL4008Z	SPECIAL SCREW		4		
	71	E409015-001SM	SHIELD PLATE		1		
	72	GBSG3008CC	T.SCREW		2		
⚠	73	EMP7000-200	POWER CORD		1	UP	
⚠		QMPD130-200-JN	POWER CORD		1	C,J	
⚠		QMPG020-244-JC	POWER CORD		1	A	
⚠		QMPK090-205-JN	POWER CORD		1	U,US	
⚠		QMP5530-0085BS	POWER CORD		1	UB	
⚠		QMP7520-200	POWER CORD		1	UT,UX	
⚠	74	QHS3771-108	CORD STOPPER		1		
	79	VKZ4001-110	WIRE HOLDER		1	A,U,UB,UP	
		VKZ4001-110	WIRE HOLDER		1	US,UT,UX	
⚠	80	QQT0156-001	POWER TRANS	T001	1	C,J	
⚠		QQT0156-003	POWER TRANS	T001	1	A,U,UB,UP	
⚠		QQT0156-003	POWER TRANS	T001	1	US,UT,UX	
⚠	82	QMF51E2-2R5	FUSE	F001	1	US,UT,UX	
⚠		QMF51E2-1R25	FUSE	F001	1	UP	
⚠		QMF51E2-2R5	FUSE	F001	1	A,U,UB	
⚠		QMF0007-3R15J1	FUSE	F001	1	C,J	
⚠	83	QMF51E2-1R25	FUSE	F003	1	A,U,UB	
⚠		QMF51E2-1R25	FUSE	F003	1	US,UT,UX	
⚠	84	QMF51U1-4R0-J1	FUSE	F101	1	C,J	
⚠		QMF51E2-3R15J1	FUSE	F101	1	US,UT,UX	
⚠		QMF51E2-3R15J1	FUSE	F101	1	A,U,UB,UP	
⚠	85	QMF51E2-3R15J1	FUSE	F102	1	A,U,UB,UP	
⚠		QMF51E2-3R15J1	FUSE	F102	1	US,UT,UX	
⚠		QMF51U1-4R0-J1	FUSE	F102	1	C,J	
	89	2SC4467/OPY/-F1	TRANSISTOR	Q757	1		
	90	2SA1694/OPY/-F1	TRANSISTOR	Q758	1		
	91	GV10004-008AKP	REAR PANEL		1	A,U,UB	
		GV10004-008AKP	REAR PANEL		1	US,UX	
		GV10004-009A	REAR PANEL		1	UP	
		GV10004-010A	REAR PANEL		1	UT	
		GV10004-007AKP	REAR PANEL		1	J	
		GV10004-021AKP	REAR PANEL		1	C	
	92	E207356-001SM	REAR COVER		1	A,U,UB,UP	
		E207356-001SM	REAR COVER		1	US,UT,UX	
		E207356-002SM	REAR COVER		1	C,J	
	94	SBSG3008Z	T.SCREW	C3 & STAY BRKT.	2		
	95	E73273-003	SPECIAL SCREW		14		
	96	E73273-003	SPECIAL SCREW		6		
	97	E73273-003	SPECIAL SCREW	VOL.SEL/R.PANEL	2	US,UT,UX	
		E73273-003	SPECIAL SCREW	VOL.SEL/R.PANEL	2	A,U,UB	
	98	GV10002-012A(S)	METAL COVER		1		
	99	QYSDSG3006M	T.SCREW		2		
	100	E209153-004SMKP	CD FITTING	DISC 1	1		

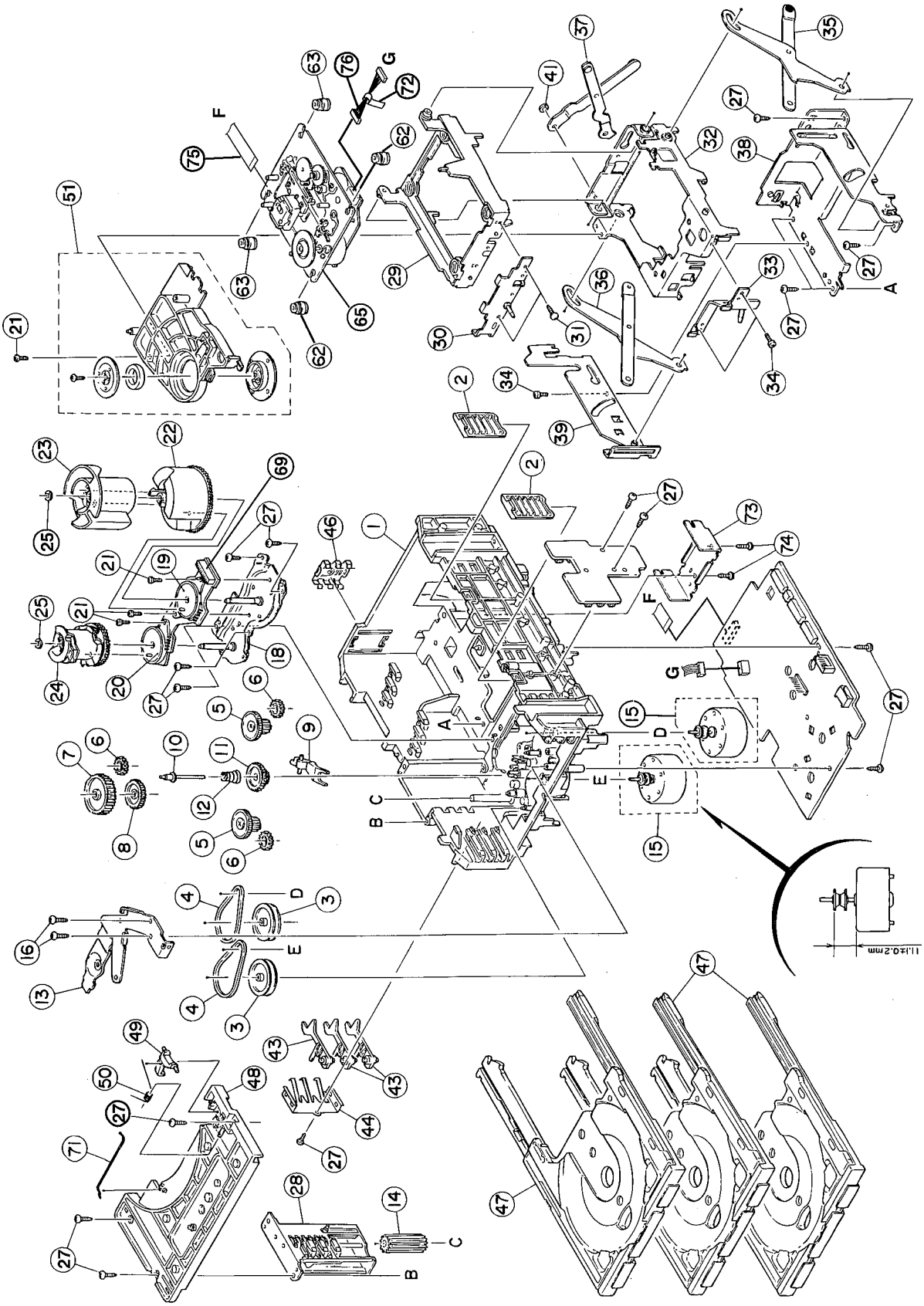
BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	101	E209155-003SMKP	CD FITTING	DISC 2	1		
	102	E209157-004SMKP	CD FITTING	DISC 3	1		
	103	E310080-231SMKP	M.VOL KNOB		1		
	104	GV20005-004AKP	WINDOW SCREEN		1		
	105	E408765-005SMKP	MIC KNOB		1	A,U,UB,UP	
		E408765-005SMKP	MIC KNOB		1	US,UT,UX	
	106	VWF1211-14TTB	CARD WIRE	FMB-SLC	1		
	107	VWF1220-10TTB	CARD WIRE	FMB-MAIN	1		
	108	VWF1216-10TTB	CARD WIRE	FMB-MAIN	1		
	109	VWF1212-25TTB	TAF CARD	FMB-FMH	1		
	110	VWF1210-20TTB	CARD WIRE	MAIN-SLC	1		
	111	VWF1019-20TTA	CARD WIRE	MAIN-VC3	1		
	112	GV30020-002A	RATING LABEL		1	UT	
	113	FMND3008-008	RATING LABEL		1	UX	
	114	GV20007-004AKP	ORNAMENT		1	US,UT,UX	
		GV20007-004AKP	ORNAMENT		1	A,U,UB,UP	
		GV20007-003AKP	ORNAMENT		1	C,J	

CD Changer Mechanism and Parts List

Block No. M 2 M M

VC3-1M



BLOCK NO. M2MM[ ][ ][ ]

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VKS1144-003	CHASSIS		1		
	2	VKS3698-003	TRAY GUIDE		2		
	3	VKS5532-003	PULLEY GEAR		2		
	4	VKB3000-164	BELT		2		
	5	VKS5505-003	GEAR B		2		
	6	VKS5506-002	GEAR C		3		
	7	VKS5507-002	CROSS GEAR U		1		
	8	VKS5508-002	CROSS GEAR L		1		
	9	VKS5510-003	SELECT LEVER		1		
	10	VKH5769-001	S.G.SHAFT		1		
	11	VKS5511-002	SELECT GEAR		1		
	12	VKW5155-003	COMP.SPRING	FOR SELECT GEAR	1		
	13	VKM3846-002	GEAR BRACKET		1		
	14	VKS5509-002MM	CYLINDER GEAR		1		
	15	MSN5D257A-SA2	DC MOTOR ASS'Y		2		
	16	DPSP2616Z	SCREW	FOR MOTOR	2		
	18	VKM3825-00AMM	C.G.BASE ASS'Y		1		
	19	VKZ3172-00A	CAM SW. R ASS'Y		1		
	20	VKZ3173-00A	CAM SW. L ASS'Y		1		
	21	SPST2606Z	SCREW		4		
	22	VKS2263-002MM	CAM R1		1		
	23	VKS2264-002MM	CAM R2		1		
	24	VKS2265-002MM	CAM GEAR L		1		
	25	WDL316050	SLIT WASHER		2		
	27	SBSF2608Z	T.SCREW		16		
	28	VKS3702-00FMM	DRIVE UNIT		1		
	29	VKS2247-004	MECHA HOLDER A		1		
	30	VKL7767-00B	BRACKET ASS'Y		1		
	31	SBSF2606Z	SCREW	FOR BRACKET	2		
	32	VKM3860-00A	M.HOLDER B AS'Y		1		
	33	VKL7802-00C	M.HOLDER C AS'Y		1		
	34	SDST2604Z	SCREW		3		
	35	VKL7810-00A	LIFTER ASS'Y R		1		
	36	VKL7811-00A	LIFTER ASS'Y L		1		
	37	VKL7812-00A	LIFTER ASS'Y H		1		
	38	VKL2732-002	LIFTER BASE		1		
	39	VKM3823-001	LIFTER BRACKET		1		
	41	WDL266035-2	SLIT WASHER		1		
	43	VKS5514-002MM	LOCK LEVER		3		
	44	VKY3133-002MM	RETURN SPRING		1		
	46	VKY3134-003MM	CLICK SPRING		1		
	47	VKS2252-00EKP	TRAY ASS'Y		3		
	48	VKS2250-003	TOP BRACKET		1		
	49	VKS5515-002	S.TRAY STOPPER		1		
	50	VKW5156-004	TORSION SPRING		1		
	51	VKS3703-00FMMKP	CLAMPER ASS'Y		1		
	62	FMYH4003-002	INSULATOR		2		
	63	FMYH4003-001	INSULATOR		2		
	65	----------	CD MECHA.ASS'Y		1		
	69	QGB2021L1-10	CONNECTOR	CN805	1		
	71	VKW5187-001	ROD		1		
	72	VYSA1R2-033	SPACER	FOR EWS176-008	1		
	73	LE30611-001AKP	C.B HOLDER	FOR CD CB	1		
	74	SBSF3008Z	SCREW	FOR HOLDER	2		
	75	QUQ110-1509AJ	FLAT WIRE	TRAVERSE 15	1		
	76	EWS176-008	FLAT WIRE	TRAVERSE 6	1		

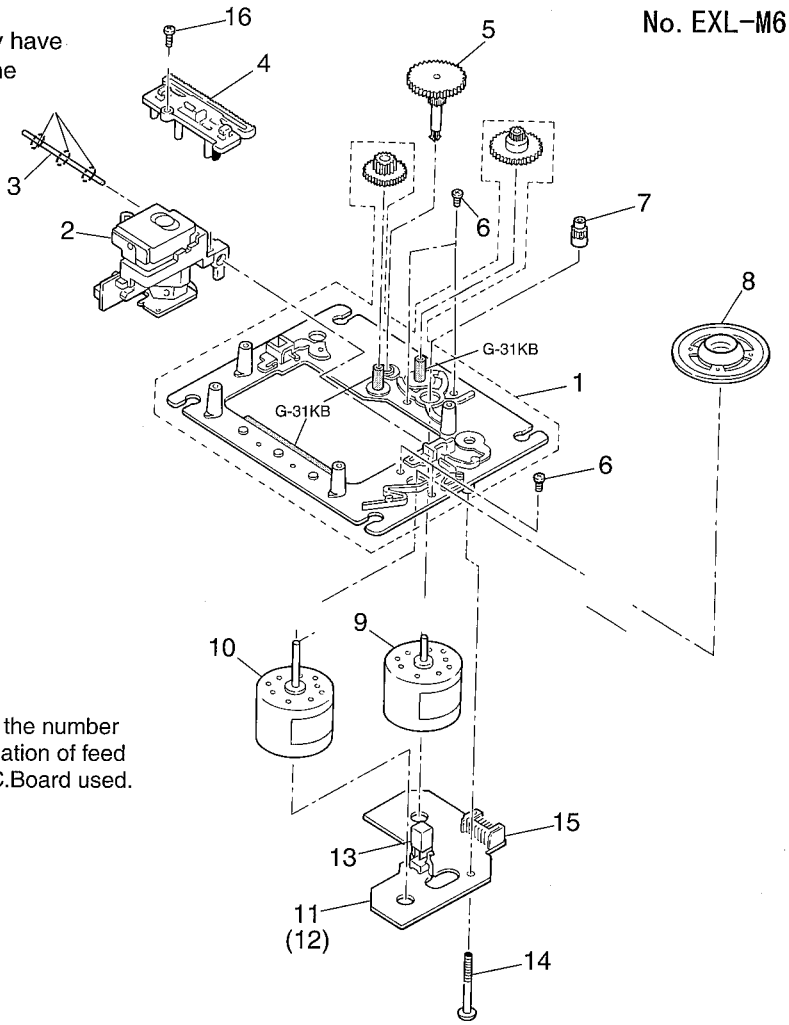
CD Mechanism Ass'y and Parts List

■ Grease Point

Block No. M 3 M M

No. EXL-M6

G-31KB
(Grease to apply have to be alittle for the exchange)



NOTE
Please order moutor after confirming the number of the P.C.Board because the combination of feed motor is different according to the P.C.Board used.

■CD Mechanism Assembly Parts List

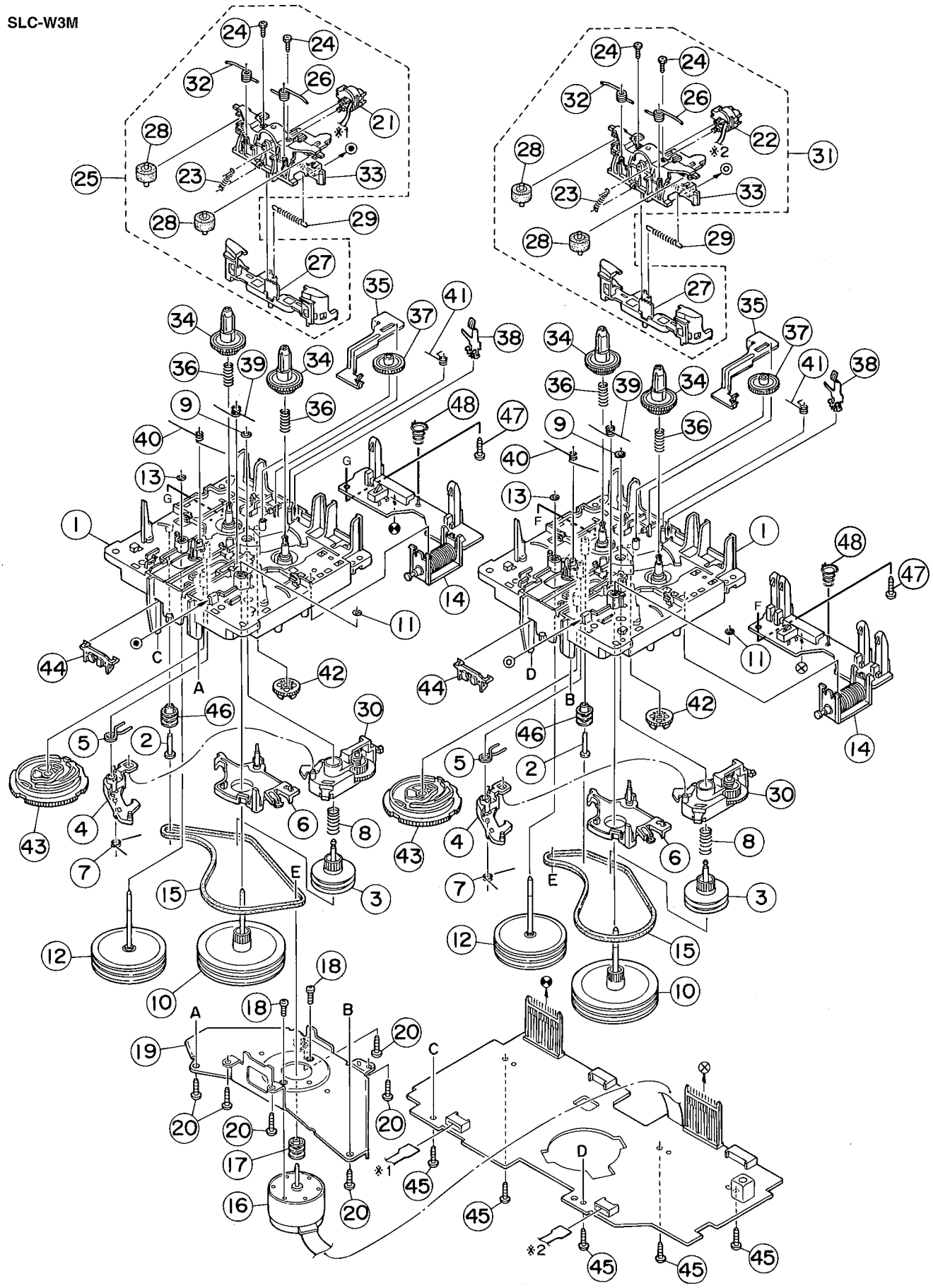
⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EPB-002PK	MECHA. BASE ASSY	1		
	2	OPTIMA-150S	OPTICAL PICK UP	1		
	3	E407782-001	CD SHAFT	1		
	4	E307746-001	CD RACK	1		
	5	EPB-003A	MECHA GEAR	1		
	6	SDSP2003N	SCREW	4		
	7	E406750-001	PINION GEAR	1		
	8	EPB309173A	TURN TABLE	1		
	9	E406784-001	FEED MOTOR	1	Use the No.11 P.C.Board	
		MDN-4RA3ETA-1	FEED MOTOR	1	Use the No.12 P.C.Board	
	10	E406783-001	SPINDLE MOTOR	1		
	11	EMW10190-001(S)	P. C. BOARD	1		
	12	EMW10190-221(S)	P. C. BOARD	1		
	13	ESB1100-005	LEAF SWITCH	1		
	14	E75832-001	SCREW	1		
	15	EMV5109-006B	CONN. TERMINAL	1		
	16	SDSF2006Z	SCREW	1		

-MEMO-

Cassette Mechanism Ass'y and Parts List

Block No. M 4 M M

SLC-W3M



BLOCK NO. M4MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VKS1165-00FKP	CHASSIS B. ASSY		2		
	2	VKH5786-002	SHAFT		2		
	3	VKR3199-002	MAIN PULLEY		2		
	4	VKS3785-001MM	FR ARM		2		
	5	VKW5284-002	SWING SPRING		2		
	6	VKS2278-001	TRIGGER ARM		2		
	7	VKW5301-001	FR SPRING		2		
	8	VKW5266-001	ELEVATOR SPRING		2		
	9	WDL214025	WASHER		2		
	10	VKF3205-00B	F.WHEEL ASSY(R)		2		
	11	WDL183425	SLIT WASHER		2		
	12	VKF3207-00B	F.WHEEL ASSY(L)		2		
	13	WDL173525-6	SLIT WASHER		2		
	14	VGP2401-00A	DC SOLENOID		2		
	15	VKB3000-174	CAPSTAN BELT(B)		2		
	16	MSI-5U2LWA	D.C.MOTOR ASS'Y		1		
	17	VKR4761-001	MOTOR PULLEY		1		
	18	SPSP2604Z	SCREW		2		
	19	VKM3907-001	JOINT BRACKET		1		
	20	SBSF2608Z	T.SCREW		6		
	21	VGH0424-037	ERASE HEAD		1		
	22	VGH0425-544	R/P&E HEAD		1		
	23	VKW5302-001	HEAD SPRING		2		
	24	VKZ4730-001	SPECIAL SCREW		4		
	25	VKS2279-00CKP	HEAD MOUNT ASSY		1		
	26	VKW5299-001	PIN.ROL.SP.(R)		2		
	27	VKS2277-005	DIRECTION LEVER		2		
	28	VKP4233-00A	PINCH ROL. ASSY		4		
	29	VKW5285-001	RETURN SPRING		2		
	30	VKS3786-00EKP	CLUTCH ASSY		2		
	31	VKS2275-00C	HEAD MOUNT ASSY		1		
	32	VKW5300-001	PIN.ROL.SP.(L)		2		
	33	VKS1167-001KP	HEAD MOUNT BASE		2		
	34	VKS2274-002	REEL GEAR		4		
	35	VKM3906-002	PLAY SW.LEVER		2		
	36	VKW5286-002	B.T. SPRING		4		
	37	VKS5559-001	PLAY IDLE GEAR		2		
	38	VKY3149-001	CASSETTE SP.		2		
	39	VKW5279-001	HEAD BASE SP(R)		2		
	40	VKW5280-001	HEAD BASE SP(L)		2		
	41	VKW5296-001	EARTH SPRING		2		
	42	VKS5560-001	FR IDLE GEAR		2		
	43	VKS1166-003KP	CONTROL CAM		2		
	44	VKS5577-001	FPC HOLDER		2		
	45	SBSF2608Z	T.SCREW	FOR P.W.B.	5		
	46	VKR4749-002	IDLE PULLEY		2		
	47	SBSF2006Z	SCREW		2		
	48	LV40450-001AKP	CONNECT SP		2		

■ Power Supply & Amplifier Board

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 001	QFV82AJ-104	M.CAPACITOR	.10MF 5% 100V	
	C 002	QFV82AJ-104	M.CAPACITOR	.10MF 5% 100V	
	C 003	QFV82AJ-104	M.CAPACITOR	.10MF 5% 100V	
	C 004	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
	C 005	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
	C 011	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 012	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 013	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 014	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
	C 015	QETM1HM-228	E CAPACITOR	2200MF 20% 50V	
	C 016	QET41VM-107	E CAPACITOR	100MF 20% 35V	
	C 017	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C 018	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C 019	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 020	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C 021	QET41HM-475	E CAPACITOR	4.7MF 20% 50V	
	C 022	QET41HM-475	E CAPACITOR	4.7MF 20% 50V	
	C 023	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 024	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 025	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 030	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 031	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 032	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 033	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
	C 040	QETC1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 045	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C 060	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 061	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C 062	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 066	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 067	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C 068	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 069	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 070	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C 071	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 072	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 073	QCF11HP-103	C CAPACITOR	.010MF +80:-20%	
	C 074	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 095	QFLM1HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C 703	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 704	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 705	QCBB1HK-181Y	C CAPACITOR	180PF 10% 50V	
	C 706	QCBB1HK-181Y	C CAPACITOR	180PF 10% 50V	
	C 707	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C 708	QET41EM-476	E CAPACITOR	47MF 20% 25V	
	C 709	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 710	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 711	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C 712	QET41HM-226	E CAPACITOR	22MF 20% 50V	
	C 713	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 714	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 715	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 716	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 717	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	J
	C 718	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	J

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 721	QTE1V06-106Z	E CAPACITOR		
	C 722	QTE1V06-106Z	E.CAPACITOR		
	C 726	QET41EM-106	E CAPACITOR	10MF 20% 25V	
	C 729	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C 739	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	
	C 751	QCY31HK-272Z	C CAPACITOR	2700PF 10% 50V	
	C 752	QCY31HK-272Z	C CAPACITOR	2700PF 10% 50V	
	C 753	QCY31HK-472Z	C CAPACITOR	4700PF 10% 50V	
	C 754	QCY31HK-472Z	C CAPACITOR	4700PF 10% 50V	
	C 755	QFV41HJ-105	TF.CAPACITOR	1.0MF 5% 50V	
	C 756	QFV41HJ-105	TF.CAPACITOR	1.0MF 5% 50V	
	C 757	QCXB1CM-152Y	C CAPACITOR	1500PF 20% 16V	
	C 758	QCXB1CM-152Y	C CAPACITOR	1500PF 20% 16V	
	C 799	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	CN002	EMV7163-011	CONNECTOR	TO FMH-014-3 RE	
	CN003	EMV7163-011	CONNECTOR	TO FMH-014-4 FR	
	CN005	EMV7163-011	CONNECTOR	TO SPK BOARD	
	CN006	EMV5163-010R	CONNECTOR	TO FMC (MAIN)	
	CN007	QGF1201C3-12	VMC0332-012	TO FMB (MICOM)	
	CN009	EMV5138-005	CONNECTOR	TO TRANS	
	CN012	EMV5163-011R	CONECTOR	TO FMH-014-2	
	CN013	EMV5163-011R	CONECTOR	TO FMH-014-2	
	CN019	EWS285-202V	SKT WIRE		
	CN111	EMV7145-004Z	CONNECTOR	TO TRANS	
	CN703	EMV5163-007R	CONNECTOR		
	CN915	EMV7145-004Z	SOCKET	FOR H/PHONE FW	
⚠	CP 1	ICP-N15	ICP		
⚠	D 001	1N5402M-20	DIODE	HIGH	
⚠	D 002	1N5402M-20	DIODE	HIGH	
⚠	D 003	1N5402M-20	DIODE	HIGH	
⚠	D 004	1N5402M-20	DIODE	HIGH	
⚠	D 011	30DF2FC	DIODE	LOW	
⚠	D 012	30DF2FC	DIODE	LOW	
⚠	D 013	30DF2FC	DIODE	LOW	
⚠	D 014	30DF2FC	DIODE	LOW	
	D 015	30DF2FC	DIODE	CHANGE	
	D 016	30DF2FC	DIODE	CHANGE	
⚠	D 017	1SR35-100	SI DIODE		
	D 018	1SR35-100	SI DIODE		
	D 019	MTZ30JC	ZENER DIODE		
	D 020	UZ6.2BSA	Z.DIODE IDM		
	D 021	MTZ5.1B	ZENER DIODE		
	D 022	1SS133-T2	DIODE		
	D 023	1SS133-T2	DIODE		
	D 024	1SS133-T2	DIODE		
	D 025	1SS133-T2	DIODE		
⚠	D 027	1SR35-100	SI DIODE		
	D 030	MTZ11JA	Z.DIODE		
	D 044	MTZ2.4JB	Z.DIODE		
	D 060	MTZ5.1B	ZENER DIODE		
	D 061	MTZ11JC	ZENER DIODE		
	D 062	MTZ6.8JC	ZENER DIODE		
	D 065	MTZ8.2JC	ZENER DIODE		
	D 066	MTZ13JC	ZENER DIODE		
	D 067	MTZ13JC	ZENER DIODE		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 068	MTZ13JC	ZENER DIODE		
	D 069	MTZ13JC	ZENER DIODE		
	D 070	MTZ13JC	ZENER DIODE	SHORT TEST	
	D 703	1SS133-T2	DIODE		
	D 704	1SS133-T2	DIODE		
	D 719	1SS133-T2	DIODE		
	D 720	1SS133-T2	DIODE		
	D 728	1SS133-T2	DIODE		
	D 751	1SS133-T2	DIODE		
	D 752	1SS133-T2	DIODE		
	D 753	1SS133-T2	DIODE		
	D 754	1SS133-T2	DIODE		
	D 755	1SS133-T2	DIODE		
	D 756	1SS133-T2	DIODE		
	D 757	MTZ3.9JB	Z DIODE		
	D 758	MTZ3.9JB	Z DIODE		
	D 759	1SS133-T2	DIODE		
	D 760	1SS133-T2	DIODE		
	EP001	EMZ4002-002Z	IM EARTH PLATE	TO GND CHASSIS	
	FT011	EMG7331-003Z	FUSE CLIP	F001 LIVE FUSE	
	FT012	EMG7331-003Z	FUSE CLIP	F001 LIVE FUSE	
	FT031	EMG7331-003Z	FUSE CLIP	F003 VSEL FUSE	A,U,UB,UP
	FT031	EMG7331-003Z	FUSE CLIP	F003 VSEL FUSE	US,UT,UX
	FT032	EMG7331-003Z	FUSE CLIP	F003 VSEL FUSE	US,UT,UX
	FT032	EMG7331-003Z	FUSE CLIP	F003 VSEL FUSE	A,U,UB,UP
	FT511	EMG7331-003Z	FUSE CLIP	F101 SEC FUSE	
	FT512	EMG7331-003Z	FUSE CLIP	F101 SEC FUSE	
	FT521	EMG7331-003Z	FUSE CLIP	F102 SEC FUSE	
	FT522	EMG7331-003Z	FUSE CLIP	F102 SEC FUSE	
	FW101	EWR34D-14LSV	EF WIRE		
	IC701	TDA7294	I.C.		
	IC702	TDA7294	I.C.		
	L 001	VQZ0048-009	INDUCTOR		
	L 701	EQL0011-R45J1	INDUCTOR		
	L 702	EQL0011-R45J1	INDUCTOR		
	Q 001	2SB1187(F,G)	TRANSISTOR		
	Q 003	DTC114YSA-T	D.TRANSISTOR		
	Q 004	DTC114YSA-T	D.TRANSISTOR		
	Q 005	DTC114YS	D.TRANSISTOR		
	Q 030	2SD2061/EF/	TRANSISTOR		
	Q 040	2SC945A	TRANSISTOR		
	Q 060	2SD2061/EF/	TRANSISTOR		
	Q 061	2SC945A	TRANSISTOR		
	Q 062	2SC945A	TRANSISTOR		
	Q 065	2SD2061/EF/	TRANSISTOR		
	Q 066	2SD2061/EF/	TRANSISTOR		
	Q 067	2SA933S(RS)	TRANSISTOR		
	Q 068	2SC945A	TRANSISTOR		
	Q 069	2SD2061/EF/	TRANSISTOR		
	Q 070	2SC945A	TRANSISTOR		
	Q 071	2SB1187(F,G)	TRANSISTOR		
	Q 072	2SA933S(RS)	TRANSISTOR		
	Q 073	KRA104M-T	D.TRANSISTOR		
	Q 074	DTC144ESA-T	D.TRANSISTOR		
	Q 075	KRC104M-T	D.TRANSISTOR		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	Q 076	DTA144ES	D.TRANSISTOR		
	Q 095	2SK301(P,Q)	FET TRANSISTOR		
	Q 701	2SA1038(R,S)	TRANSISTOR		
	Q 702	2SA1038(R,S)	TRANSISTOR		
	Q 726	2SC2389S/SE/-T	TRANSISTOR		
	Q 727	2SA1038(R,S)	TRANSISTOR		
	Q 728	2SC1740S(R,S)	TRANSISTOR		
	Q 733	2SD2144S(VW)	TRANSISTOR		
	Q 734	2SD2144S(VW)	TRANSISTOR		
	Q 735	2SD2144S(VW)	TRANSISTOR		
	Q 736	2SD2144S(VW)	TRANSISTOR		
	Q 737	KRA111M-T	D.TRANSISTOR		
	Q 751	2SC1685/QR/-T	TRANSISTOR		
	Q 752	2SA933S(RS)	TRANSISTOR		
	Q 753	2SC1685/QR/-T	TRANSISTOR		
	Q 754	2SA933S(RS)	TRANSISTOR		
	Q 755	2SA965(Y)	TRANSISTOR		
	Q 756	2SC2235(O,Y)	TRANSISTOR		
⚠	R 001	QRZ9044-335	COMP.RESISTOR	3.3M 1/0W	C,J
⚠	R 002	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	C,J
	R 003	QRD167J-332	C RESISTOR	3.3K 5% 1/4W	
	R 004	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 005	QRD161J-104	C RESISTOR	100K 5% 1/4W	
⚠	R 006	QRZ0077-4R7X	F RESISTOR	4.7 1/0W	US,UT,UX
⚠	R 006	QRD14CJ-2R2SX	C RESISTOR	2.2 5% 1/4W	C,J
⚠	R 006	QRZ0077-4R7X	F RESISTOR	4.7 1/0W	A,U,UB,UP
	R 007	QRZ0077-4R7X	F RESISTOR	4.7 1/0W	A,U,UB,UP
	R 007	QRZ0077-4R7X	F RESISTOR	4.7 1/0W	US,UT,UX
	R 008	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 009	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 010	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 011	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 012	QRD161J-683	C RESISTOR	68K 5% 1/4W	
	R 013	QRD161J-103	C RESISTOR	10K 5% 1/4W	
⚠	R 030	QRZ0077-4R7X	F RESISTOR	4.7 5% 1/4W	
	R 031	QRD161J-681	C RESISTOR	680 5% 1/4W	
	R 040	QRD12CJ-471SX	C RESISTOR	470 5% 1/2W	
	R 041	QRD12CJ-471SX	C RESISTOR	470 5% 1/2W	
	R 042	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 045	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 048	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 049	QRD161J-153	C RESISTOR	15K 5% 1/4W	
⚠	R 060	QRG01DJ-180X	OMF RESISTOR	18 5% 1/1W	J
⚠	R 061	QRG01DJ-180X	OMF RESISTOR	18 5% 1/1W	J
	R 062	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 063	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 064	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 065	QRD161J-561	C RESISTOR	560 5% 1/4W	
	R 066	QRD161J-561	C RESISTOR	560 5% 1/4W	
	R 067	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 068	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 071	QRD167J-4R7	C RESISTOR	4.7 5% 1/4W	
	R 072	QRD167J-4R7	C RESISTOR	4.7 5% 1/4W	
⚠	R 074	QRZ9021-220	FUSI RESISTOR	22 1/0W	A,U,UB,UP
⚠	R 074	QRZ9021-220	FUSI.RESISTOR	22 1/0W	US,UT,UX

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
⚠	R 074	QRG022J-220AM	UNF.OMF.RES.	22 5% 1/2W	C,J
⚠	R 075	QRZ9021-220	FUSI.RESISTOR	22 1/0W	US,UT,UX
⚠	R 075	QRZ9021-220	FUSI.RESISTOR	22 1/0W	A,U,UB,UP
⚠	R 075	QRG022J-220AM	UNF.OMF.RES.	22 5% 1/2W	C,J
⚠	R 076	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R 077	QRD161J-681	C RESISTOR	680 5% 1/4W	
	R 078	QRD161J-182	C RESISTOR	1.8K 5% 1/4W	
⚠	R 079	QRG022J-120A	UNF.OMF.RES.	12 5% 1/2W	J
	R 081	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 082	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
⚠	R 083	QRG01DJ-150X	OMF RESISTOR	15 5% 1/1W	J
	R 084	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 085	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 086	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 087	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 090	QRD161J-102	C RESISTOR	FMB REQUEST	
	R 091	QRD161J-102	C RESISTOR	FMB REQUEST	
	R 092	QRD161J-102	C RESISTOR	FMB REQUEST	
	R 093	QRD161J-102	C RESISTOR	FMB REQUEST	
	R 094	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 095	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 096	QRD161J-105	C RESISTOR	1.0M 5% 1/4W	
	R 097	QRD161J-475	C RESISTOR	4.7M 5% 1/4W	
	R 098	QRD161J-104	C RESISTOR	100K 5% 1/4W	A,U,UB,UP
	R 098	QRD161J-104	C RESISTOR	100K 5% 1/4W	US,UT,UX
	R 099	QRD161J-104	C RESISTOR	100K 5% 1/4W	US,UT,UX
	R 099	QRD161J-104	C RESISTOR	100K 5% 1/4W	A,U,UB,UP
	R 100	QRD161J-104	C RESISTOR	100K 5% 1/4W	A,U,UB,UP
	R 100	QRD161J-104	C RESISTOR	100K 5% 1/4W	US,UT,UX
	R 701	QRD14CJ-100SX	UNF.C.RESISTOR	10 5% 1/4W	
	R 702	QRD14CJ-100SX	UNF.C.RESISTOR	10 5% 1/4W	
	R 703	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 704	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 705	QRD14CJ-182SX	UNF.C.RESISTOR	1.8K 5% 1/4W	
	R 706	QRD14CJ-182SX	UNF.C.RESISTOR	1.8K 5% 1/4W	
	R 707	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 708	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 709	QRX014J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 710	QRX014J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 711	QRX014J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 712	QRX014J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 713	QRD14CJ-100SX	UNF.C.RESISTOR	10 5% 1/4W	
	R 714	QRD14CJ-100SX	UNF.C.RESISTOR	10 5% 1/4W	
	R 715	QRD14CJ-100SX	UNF.C.RESISTOR	10 5% 1/4W	
	R 716	QRD14CJ-100SX	UNF.C.RESISTOR	10 5% 1/4W	
	R 717	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 718	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 719	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 720	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 721	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 722	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 723	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 724	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 725	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R 726	QRD161J-104	C RESISTOR	100K 5% 1/4W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 727	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 728	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 729	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 730	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 731	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 732	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 733	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 734	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 735	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 736	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 739	QRG01DJ-821X	OMF RESISTOR	820 5% 1/1W	
	R 740	QRG01DJ-821X	OMF RESISTOR	820 5% 1/1W	
	R 751	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 752	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 753	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 754	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 755	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R 756	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R 757	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 758	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 759	QRD167J-682	C RESISTOR	6.8K 5% 1/4W	
	R 760	QRD167J-682	C RESISTOR	6.8K 5% 1/4W	
	R 761	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 762	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 763	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 764	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 765	QRG01DJ-182X	OMF RESISTOR	1.8K 5% 1/1W	
	R 766	QRG01DJ-182X	OMF RESISTOR	1.8K 5% 1/1W	
	R 767	QRD14CJ-681SX	UNF C RESISTOR	680 5% 1/4W	
	R 768	QRD14CJ-681SX	UNF C RESISTOR	680 5% 1/4W	
	R 769	QRD14CJ-821SX	C RESISTOR	820 5% 1/4W	
	R 770	QRD14CJ-821SX	C RESISTOR	820 5% 1/4W	
	R 771	QRD161J-821	C RESISTOR	820 5% 1/4W	
	R 772	QRD161J-821	C RESISTOR	820 5% 1/4W	
	R 773	QRD14CJ-101SX	UF RESISTOR	100 5% 1/4W	
	R 774	QRD14CJ-101SX	UF RESISTOR	100 5% 1/4W	
	R 775	QRD161J-471	C RESISTOR	470 5% 1/4W	
	R 776	QRD161J-471	C RESISTOR	470 5% 1/4W	
	R 777	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	R 778	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	R 779	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 780	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
⚠	S 001	QSW0524-001	VOLTAGE SW		US,UT,UX
⚠	S 001	QSW0524-001	VOLTAGE SW		A,U,UB,UP
	TB001	EMZ4001-002Z	TAB		
	TB002	EMZ4001-002Z	TAB		
⚠	TH002	QAD0095-4R7Z	POSISTOR		

■ Main Amplifier &Tuner B0ard

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 1	QCC11EM-223V	C CAPACITOR	.022MF 20% 25V	
	C 2	QCXB1CM-332Y	C CAPACITOR	3300PF 20% 16V	C,J
	C 3	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 4	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 5	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 7	QCFB1HZ-104Y	C CAPACITOR	.10MF +80:-20%	C,J
	C 12	QCSB1HJ-100Y	C CAPACITOR	10PF 5% 50V	
	C 13	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 18	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 19	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 21	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 30	QEK61CM-476	E CAPACITOR	47MF 20% 16V	
	C 32	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 33	QEK61AM-107ZM	E CAPACITOR	100MF 20% 10V	
	C 34	QCSB1HJ-150Y	C CAPACITOR	15PF 5% 50V	
	C 35	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 36	QEK61EM-106ZN	E CAPACITOR	10MF 20% 16V	
	C 37	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 38	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 39	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 40	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 41	QEK61HM-104ZN	E CAPACITOR	.10MF 20% 50V	
	C 42	QEK61HM-474GZ	E CAPACITOR	.47MF 20% 50V	
	C 44	QCSB1HJ-680Y	C CAPACITOR	68PF 5% 50V	
	C 45	QEK61HM-335ZN	E CAPACITOR	3.3MF 20% 50V	
	C 46	QCC11EM-223V	C CAPACITOR	.022MF 20% 25V	
	C 47	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 49	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C 50	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C 51	QEK51HM-105G	E CAPACITOR	1.0MF 20% 50V	
	C 52	QEK51HM-105G	E CAPACITOR	1.0MF 20% 50V	
	C 60	QEK61AM-107ZM	E CAPACITOR	100MF 20% 10V	
	C 61	QCSB1HJ-120Y	C CAPACITOR	12PF 5% 50V	
	C 62	QCSB1HJ-120Y	C CAPACITOR	12PF 5% 50V	
	C 63	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 65	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 66	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 67	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 68	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 69	QFV81HJ-105	TF.CAPACITOR	1.0MF 5% 50V	
	C 70	QCXB1CM-392Y	C CAPACITOR	3900PF 20% 16V	
	C 71	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 72	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 360	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 361	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 365	QET41CM-227	E CAPACITOR	220MF 20% 16V	
	C 366	QET41AM-108	E CAPACITOR	1000MF 20% 10V	
	C 372	EETB1HM-475E	E.CAPACITOR		
	C 373	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 380	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 381	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 382	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 383	EETC1HM-476ZE	E CAPASITOR		
	C 385	EETB1HM-105E	E.CAPACITOR		
	C 386	QCBB1HK-681Y	C CAPACITOR	680PF 10% 50V	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 387	QFLC1HJ-153ZM	M CAPACITOR	.015MF 5% 50V	
	C 388	QCXB1CM-182Y	C CAPACITOR	1800PF 20% 16V	
	C 389	QCS11HJ-330	C CAPACITOR	33PF 5% 50V	
	C 390	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 398	QFV41HJ-103ZM	TF CAPACITOR	.010MF 5% 50V	
	C 399	QFV41HJ-103ZM	TF CAPACITOR	.010MF 5% 50V	
	C 401	QFLM1HJ-222Z	M CAPACITOR	2200PF 5% 50V	
	C 402	QFLM1HJ-222Z	M CAPACITOR	2200PF 5% 50V	
	C 403	QFLM1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C 404	QFLM1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C 407	QTE1V06-106Z	E.CAPACITOR		
	C 408	QTE1V06-106Z	E.CAPACITOR		
	C 411	EETB1EM-106E	E.CAPACITOR		
	C 412	EETB1EM-106E	E.CAPACITOR		
	C 413	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 414	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 415	EETB1EM-106E	E.CAPACITOR		
	C 416	EETB1EM-106E	E.CAPACITOR		
	C 417	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	
	C 418	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	
	C 419	EETB1EM-106E	E.CAPACITOR		
	C 420	QET41AM-227	E CAPACITOR	220MF 20% 10V	
	C 421	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 422	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 423	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 424	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 425	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
	C 426	QFLC1HJ-183ZM	M CAPACITOR	.018MF 5% 50V	
	C 427	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
	C 428	QFLC1HJ-223ZM	M CAPACITOR	.022MF 5% 50V	
	C 429	QFLM1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 430	QFLM1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 431	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	
	C 432	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	
	C 433	EETB1HM-105E	E.CAPACITOR		
	C 434	EETB1HM-105E	E.CAPACITOR		
	C 435	EETB1EM-106E	E.CAPACITOR		
	C 436	EETB1EM-106E	E.CAPACITOR		
	C 439	QETC1HM-224Z	E.CAPACITOR	.22MF 20% 50V	US,UT,UX
	C 439	QETC1HM-224Z	E.CAPACITOR	.22MF 20% 50V	A,U,UB,UP
	C 440	EETB1EM-106E	E.CAPACITOR		US,UT,UX
	C 440	EETB1EM-106E	E.CAPACITOR		A,U,UB,UP
	C 441	EETB1EM-106E	E.CAPACITER		A,U,UB,UP
	C 441	EETB1EM-106E	E.CAPACITER		US,UT,UX
	C 442	EETB1EM-106E	E.CAPACITER		US,UT,UX
	C 442	EETB1EM-106E	E.CAPACITOR		A,U,UB,UP
	C 445	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 446	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 447	EETB1EM-106E	E.CAPACITOR		
	C 448	EETB1EM-106E	E.CAPACITOR		
	C 454	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 457	EETB1EM-106E	E.CAPACITOR		
	C 458	EETB1EM-106E	E.CAPACITOR		
	C 459	QFLM1HJ-333Z	M CAPACITOR	.033MF 5% 50V	
	C 460	EETB1HM-475E	E.CAPACITOR		

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 461	QETB1HM-474N	E.CAPACITOR	.47MF 20% 50V	
	C 462	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C 463	QETB1HM-474N	E.CAPACITOR	.47MF 20% 50V	
	C 465	QFLC1HJ-473ZM	M CAPACITOR	.039MF 5% 50V	
	C 466	QFLC1HJ-473ZM	M CAPACITOR	.047MF 5% 50V	
	C 467	EETB1HM-105E	E.CAPACITOR		
	C 468	QETC1EM-476ZM	E.CAPACITOR	47MF 20% 25V	
	C 469	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 470	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 471	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 472	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 473	QETC1EM-476ZM	E.CAPACITOR	47MF 20% 25V	
	C 474	QETC1EM-476ZM	E.CAPACITOR	47MF 20% 25V	
	C 475	QTE1V06-106Z	E.CAPACITOR		
	C 476	QTE1V06-106Z	E.CAPACITOR		
	C 477	EETB1HM-475E	E.CAPACITOR		
	C 484	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 489	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C 490	QET41CM-476	E CAPACITOR	47MF 20% 16V	
	C 493	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 494	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 495	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 496	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C 581	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 582	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 585	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	A,U,UB,UP
	C 585	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	US,UT,UX
	C 586	EETB1EM-106E	E.CAPACITOR		US,UT,UX
	C 586	EETB1EM-106E	E.CAPACITOR		A,U,UB,UP
	C 589	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	CF 1	VCF2L3B-108Z	C FILTER		
	CF 2	VCF2L3B-108Z	C FILTER		
	CF 3	VCF1Z2Z-115Z	C FILTER		
	CF 4	CMU2-456A05	CERA LOCK		
	CN410	EMV7171-119	CONNECTOR	MAIN-VC3	
	CN411	QGF1201C3-20	FFC/FPC CONNE	FMB-MAIN	
	CN412	VMC0332-010V	CONNECTOR	MAIN-SLC	
	CN413	VMC0332-016V	FFC/FPC CONNE	FMB-MAIN	
	CN414	EMV7145-005Z	SOCKET	MAIN-MIC	US,UT,UX
	CN414	EMV7145-005Z	SOCKET	MAIN-MIC	A,U,UB,UP
	CN415	EMV7145-004Z	SOCKET	MAIN-C.BRD	
	CN416	QGB2510J1-10	CONNECTOR	FMH-FMC**	
	D 1	1SS133-T2	DIODE		
	D 2	1SS133-T2	DIODE		
	D 3	1SS133-T2	DIODE		
	D 4	1SS133-T2	DIODE		
	D 301	1SR35-100	SI DIODE		
	D 302	MTZ3.9JB	Z DIODE		
	D 303	1SS133-T2	DIODE		
	D 304	1SR35-100	SI DIODE		
	D 305	1SS133-T2	DIODE		
	D 306	1SS133-T2	DIODE		
	D 307	1SS133-T2	DIODE		
	D 401	MTZ5.1B	ZENER DIODE		A,U,UB,UP
	D 401	MTZ5.1B	ZENER DIODE		US,UT,UX

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 402	MTZ5.1B	ZENER DIODE		US,UT,UX
	D 402	MTZ5.1B	ZENER DIODE		A,U,UB,UP
	D 403	1SR35-100	SI DIODE		
	D 481	1SS133-T2	DIODE		
	D 482	1SS133-T2	DIODE		
	EP001	E409182-001SM	GRAND TERMINAL		
	IC 1	TA2057N	IC		
	IC 2	LC72136N	IC		
	IC401	TDA7439	IC	MAIN VOL	
	IC402	BA15218	IC		
	IC403	BA15218	IC	KARAOKE	
	IC404	TC4052BP	IC		US,UT,UX
	IC404	TC4052BP	IC		A,U,UB,UP
	IC405	BA15218	IC		
	IC406	LA2650	IC		
	IC407	BA15218	IC		
	IC542	BA3835S	IC		
	J 1	FMMB10YV-401K	ANT TERMINAL		
	J 401	EMN00TV-222AJ2	PIN JACK		
	L 1	VQZ0098-202	COIL BLOCK		
	L 4	VQP0018-221	INDUCTOR		
	L 401	QQL29BJ-100Z	INDUCTOR		
	L 402	VQZ0048-009	INDUCTOR		
	L 403	VQZ0048-009	INDUCTOR		
	Q 1	2SC1923	TR TAPE		
	Q 6	DTA114YS	D.TRANSISTOR		
	Q 301	2SD2144S(VW)	TRANSISTOR		
	Q 302	2SD2144S(VW)	TRANSISTOR		
	Q 304	2SA1175	TRANSISTOR		
	Q 305	2SC2785	TRANSISTOR		
	Q 306	2SC2785	TRANSISTOR		
	Q 307	2SC2785	TRANSISTOR		
	Q 308	DTC144TSA-T	D.TRANSISTOR		
	Q 401	2SD2144S(VW)	TRANSISTOR		
	Q 402	2SD2144S(VW)	TRANSISTOR		
	Q 403	KRA102M-T	D.TRANSISTOR		
	Q 404	DTC114YSA-T	D.RESISTOR	SA BASS LED	
	R 1	QRD161J-102	C RESISTOR	8.2K 5% 1/4W	
	R 2	QRD161J-821	C RESISTOR	120 5% 1/4W	
	R 3	QRD161J-560	C RESISTOR	56 5% 1/4W	A,U,UB,UP
	R 3	QRD161J-560	C RESISTOR	56 5% 1/4W	US,UT,UX
	R 10	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 12	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 13	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 20	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 21	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 22	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 23	QRD161J-270	C RESISTOR	27 5% 1/4W	
	R 24	QRD161J-271	C RESISTOR	270 5% 1/4W	
	R 25	QRD161J-273	C RESISTOR	27K 5% 1/4W	
	R 27	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 29	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 30	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 31	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 32	QRD161J-273	C RESISTOR	27K 5% 1/4W	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 33	QRD161J-560	C RESISTOR	56 5% 1/4W	
	R 34	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 35	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 36	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 37	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 38	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 39	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 42	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 43	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 44	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 45	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 46	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 47	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 48	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 49	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 52	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 54	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 55	QRD161J-182	C RESISTOR	1.8K 5% 1/4W	
	R 56	QRD167J-332	C RESISTOR	3.3K 5% 1/4W	
	R 57	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 64	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 65	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 66	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 69	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 100	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 101	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 102	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 103	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 104	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 360	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 370	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 371	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 372	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 373	QRD14CJ-470SX	C RESISTOR	47 5% 1/4W	C,J
	R 373	QRZ0077-470	C RESISTOR	47 1/0W	US,UT,UX
	R 373	QRZ0077-470	C RESISTOR	39 5% 1/4W	A,U,UB,UP
	R 375	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 377	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 378	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 383	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 384	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 386	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 387	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 388	QRD161J-220	C RESISTOR	22 5% 1/4W	
	R 389	QRD161J-225	C RESISTOR	2.2M 5% 1/4W	
	R 401	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 402	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 403	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 404	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 405	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 406	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 407	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 408	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 413	QRD161J-123	C RESISTOR	12K 5% 1/4W	
	R 414	QRD161J-123	C RESISTOR	12K 5% 1/4W	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 415	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R 416	QRD161J-823	C RESISTOR	82K 5% 1/4W	
	R 417	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 418	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 419	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 420	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 421	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 422	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 423	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	A,U,UB,UP
	R 423	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	US,UT,UX
	R 424	QRD161J-153	C RESISTOR	15K 5% 1/4W	A,U,UB,UP
	R 424	QRD161J-153	C RESISTOR	15K 5% 1/4W	US,UT,UX
	R 425	QRD161J-153	C RESISTOR	15K 5% 1/4W	US,UT,UX
	R 425	QRD161J-153	C RESISTOR	15K 5% 1/4W	A,U,UB,UP
	R 426	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	US,UT,UX
	R 426	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	A,U,UB,UP
	R 427	QRD161J-153	C RESISTOR	15K 5% 1/4W	A,U,UB,UP
	R 427	QRD161J-153	C RESISTOR	15K 5% 1/4W	US,UT,UX
	R 428	QRD161J-104	C RESISTOR	100K 5% 1/4W	US,UT,UX
	R 428	QRD161J-104	C RESISTOR	100K 5% 1/4W	A,U,UB,UP
	R 429	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	A,U,UB,UP
	R 429	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	US,UT,UX
	R 430	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	US,UT,UX
	R 430	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	A,U,UB,UP
	R 433	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 434	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 435	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	C,J
	R 435	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	A,U,UB,UP
	R 435	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	US,UT,UX
	R 436	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	A,U,UB,UP
	R 436	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	US,UT,UX
	R 436	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	C,J
	R 437	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 438	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 439	QRD161J-432	C RESISTOR	4.3K 5% 1/4W	
	R 440	QRD161J-432	C RESISTOR	4.3K 5% 1/4W	
	R 441	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 442	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 443	QRD167J-113	C RESISTOR	11K 5% 1/4W	US,UT,UX
	R 443	QRD167J-113	C RESISTOR	11K 5% 1/4W	A,U,UB,UP
	R 444	QRD167J-113	C RESISTOR	11K 5% 1/4W	A,U,UB,UP
	R 444	QRD167J-113	C RESISTOR	11K 5% 1/4W	US,UT,UX
	R 445	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	
	R 446	QRD161J-303Y	C RESISTOR	30K 5% 1/4W	
	R 447	QRD161J-153	C RESISTOR	15K 5% 1/4W	
	R 450	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 453	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 454	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 455	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 456	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 457	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	C,J
	R 457	QRD161J-752	C RESISTOR	7.5K 5% 1/4W	A,U,UB,UP
	R 457	QRD161J-752	C RESISTOR	7.5K 5% 1/4W	US,UT,UX
	R 458	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	C,J
	R 458	QRD161J-752	C RESISTOR	7.5K 5% 1/4W	A,U,UB,UP

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 458	QRD161J-752	C RESISTOR	7.5K 5% 1/4W	US,UT,UX
	R 459	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 460	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 461	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 462	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 463	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 464	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 465	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 469	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R 470	QRD161J-221	C RESISTOR	220 5% 1/4W	
	R 471	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 472	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 473	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 493	QRD161J-203	C RESISTOR	49K 5% 1/4W	
	R 494	QRD161J-203	C RESISTOR	20K 5% 1/4W	
	R 497	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 498	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 546	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 547	QRD161J-473	C RESISTOR	47K 5% 1/4W	
	R 548	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 549	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 555	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 556	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 573	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 576	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 578	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 579	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 580	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 581	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 582	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 583	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 584	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 585	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 586	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 587	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 588	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 589	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 590	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 591	QRD161J-223	C RESISTOR	22K 5% 1/4W	
	R 593	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 594	QRD161J-181	C RESISTOR	180 5% 1/4W	
	R 595	QRD161J-181	C RESISTOR	180 5% 1/4W	
	R 597	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 599	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	SP 56	VYSA1R4-056	SPACER		
	T 1	VQT7A21-113	IFT		
	TH401	PTH8L07BB2R2N1	POSISTOR		
	TU 1	QAU0037-001	FRONT END		
	X 1	QAX0402-001	CRYSTAL		

■ System C.P.U & Operation Switch Board

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 201	EETB1HM-475E	E.CAPACITOR		A,U,UB,UP
	C 201	EETB1HM-475E	E.CAPACITOR		US,UT,UX
	C 202	EETB1AM-107E	E.CAPACITOR		US,UT,UX
	C 202	EETB1AM-107E	E.CAPACITOR		A,U,UB,UP
	C 203	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	A,U,UB,UP
	C 203	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	US,UT,UX
	C 204	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	US,UT,UX
	C 204	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	A,U,UB,UP
	C 205	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	A,U,UB,UP
	C 205	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	US,UT,UX
	C 206	QCXB1CM-472Y	C CAPACITOR	4700PF 20% 16V	US,UT,UX
	C 206	QCXB1CM-472Y	C CAPACITOR	4700PF 20% 16V	A,U,UB,UP
	C 207	EETC1HM-226ZE	E.CAPACITOR		A,U,UB,UP
	C 207	EETC1HM-226ZE	E.CAPACITOR		US,UT,UX
	C 208	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	US,UT,UX
	C 208	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	A,U,UB,UP
	C 209	QCXB1CM-332Y	C CAPACITOR	3300PF 20% 16V	A,U,UB,UP
	C 209	QCXB1CM-332Y	C CAPACITOR	3300PF 20% 16V	US,UT,UX
	C 210	QFV71HJ-474ZM	CAPACITOR	.47MF 5% 50V	US,UT,UX
	C 210	QFV71HJ-474ZM	CAPACITOR	.47MF 5% 50V	A,U,UB,UP
	C 211	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	A,U,UB,UP
	C 211	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	US,UT,UX
	C 212	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	US,UT,UX
	C 212	QETC1HM-225ZM	E.CAPACITOR	2.2MF 20% 50V	A,U,UB,UP
	C 223	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	A,U,UB,UP
	C 223	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	US,UT,UX
	C 224	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	US,UT,UX
	C 224	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	A,U,UB,UP
	C 225	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	A,U,UB,UP
	C 225	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	US,UT,UX
	C 226	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	US,UT,UX
	C 226	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	A,U,UB,UP
	C 227	QETC1HM-106ZM	E CAPACITOR	10MF 20% 50V	A,U,UB,UP
	C 227	QETC1HM-106ZM	E CAPACITOR	10MF 20% 50V	US,UT,UX
	C 228	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	US,UT,UX
	C 228	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	A,U,UB,UP
	C 229	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	A,U,UB,UP
	C 229	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	US,UT,UX
	C 230	QETC1HM-225ZM	E CAPACITOR	2.2MF 20% 50V	US,UT,UX
	C 230	QETC1HM-225ZM	E CAPACITOR	2.2MF 20% 50V	A,U,UB,UP
	C 231	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	A,U,UB,UP
	C 231	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	US,UT,UX
	C 232	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	US,UT,UX
	C 232	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	A,U,UB,UP
	C 233	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	A,U,UB,UP
	C 233	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	US,UT,UX
	C 234	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	US,UT,UX
	C 234	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	A,U,UB,UP
	C 235	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	A,U,UB,UP
	C 235	QFLC1HJ-103ZM	M CAPACITOR	.010MF 5% 50V	US,UT,UX
	C 801	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 802	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 803	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 804	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 805	QCS31HJ-390Z	C CAPACITOR	39PF 5% 50V	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 806	QCS31HJ-390Z	C CAPACITOR	39PF 5% 50V	
	C 807	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 808	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 809	QEK60JM-227ZM	E CAPACITOR	220MF 20% 6.3V	
	C 810	QEK60JM-227ZM	E.CAPACITOR	220MF 20% 10V	
	C 811	QEK60JM-227ZM	E CAPACITOR	220MF 20% 6.3V	
	C 812	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 814	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 815	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 816	QFV71HJ-124ZM	TF CAPACITOR	.12MF 5% 50V	
	C 821	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 822	QETN1HM-226Z	E CAPACITOR	22MF 20% 10V	
	C 840	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 841	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 843	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 844	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 845	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 900	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 901	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 902	QCGB1HK-102	C CAPACITOR	1000PF 10% 50V	
	C 903	QER50JM-476	E CAPACITOR	47MF 20% 6.3V	
	CN015	EMV5163-011R	CONECTOR		
	CN705	EMV7163-007	CONNECTOR		
	CN801	QGF1201F3-20	FFC/FPC CONNE		
	CN802	VMC0163-R16	CONNECTOR		
	CN803	EMV7160-011	CONNECTOR		
	CN804	VMC0261-R12	CONNECTOR		
	C1051	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C1052	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
	C1053	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C1054	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C1055	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	C1056	QFLC1HJ-393ZM	M CAPACITOR	.039MF 5% 50V	
	D 200	MTZ5.1B	ZENER DIODE		US,UT,UX
	D 200	MTZ5.1B	ZENER DIODE		A,U,UB,UP
	D 801	1SS133-T2	DIODE		
	D 802	1SS119-02	SI DIODE		
	D 803	1SS119-02	SI DIODE		
	D 804	1SS119-02	SI DIODE		
	D 805	1SS133-T2	DIODE		
	D 806	SLR-342VC-T	LED		
	D 820	1SS133-T2	DIODE		
	D 910	SLR-342MCA47	LED		
	D 911	SLR-342MCA47	LED		
	D 912	SLR-342MCA47	LED		
	D 913	SLR-342MCA47	LED		
	D 914	SLR-342MCA47	LED		
	D 915	SLR-342MCA47	LED		
	D 916	SLR-342MCA47	LED		
	D 917	SLR-342MCA47	LED		
	D 918	SLR-342VC-T	LED		
	D 919	1SS133-T2	DIODE		
	D 920	1SS133-T2	DIODE		A,U,UB,UP
	D 920	1SS133-T2	DIODE		US,UT,UX
	D 921	1SS133-T2	DIODE		US,UT,UX

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	D 921	1SS133-T2	DIODE		A,U,UB,UP
	D1041	1SS133-T2	DIODE		
	FL801	QLF0040-001	FL TUBE		
	FW202	EWR35D-21LSV	FLAT WIRE		A,U,UB,UP
	FW202	EWR35D-21LSV	FLAT WIRE		US,UT,UX
	FW801	VWSC06-093K3K	EF FLAT WIRE		
	FW802	VWSC06-093K3K	EF FLAT WIRE		
	FW803	EWR34D-10LS	FLAT WIRE		
	FW851	EWR34D-25LSV	FLAT WIRE		
	HOLDR	GV30005-001AKP	EL HOLDER		
	IC201	BU9253AS	IC		A,U,UB,UP
	IC201	BU9253AS	IC		US,UT,UX
	IC202	BA15218N	IC		US,UT,UX
	IC202	BA15218N	IC		A,U,UB,UP
	IC801	UPD780206GF-039	IC		
	IC802	NJU3718L	IC		
	IC900	GP1U261X	IR DETECT UNIT		
	J 81	EMB10TV-401AJ3	SPK.TERMINAL		
	J 201	QNS0080-001	6.3 JACK	MIC JACK	A,U,UB,UP
	J 201	QNS0080-001	6.3 JACK	MIC JACK	US,UT,UX
	J 202	QNS0080-001	6.3 JACK	MIC JACK	US,UT,UX
	J 202	QNS0080-001	6.3 JACK	MIC JACK	A,U,UB,UP
	J 850	QNS0032-001	JACK	HEAD PHONE	
	JS900	QSW0538-001	ROTARY ENCODER		
	L 801	QQL29BJ-100Z	INDUCTOR		
	L 802	VQP0026-470Z	INDUCTOR		
	L 803	VQP0018-220	INDUCTOR		
	L 804	VQP0026-470Z	INDUCTOR		
	L 805	VQP0026-470Z	INDUCTOR		
	L 807	VQZ0048-009	INDUCTOR		
	L 840	EQL4007-2R2T	INDUCTOR	HP GND	
	Q 200	DTC114ESA-T	D.TRANSISTOR		A,U,UB,UP
	Q 200	DTC114ESA-T	D.TRANSISTOR		US,UT,UX
	Q 801	2SC2668(O)	TRANSISTOR		
	Q 802	2SC2668(O)	TRANSISTOR		
	Q 803	DTA114ES	D.TRANSISTOR		
	Q 804	DTC114ESA-T	D.TRANSISTOR		
	Q 805	DTC114ESA-T	D.TRANSISTOR		
	Q 806	DTC114ESA-T	D.TRANSISTOR		
	Q 807	DTC114ESA-T	D.TRANSISTOR		
	Q 808	DTC114ESA-T	D.TRANSISTOR		
	Q 809	2SC2785	TRANSISTOR		
	Q 810	DTC114ESA-T	D.TRANSISTOR		A,U,UB,UP
	Q 810	DTC114ESA-T	D.TRANSISTOR		US,UT,UX
	Q 811	DTC114ESA-T	D.TRANSISTOR		US,UT,UX
	Q 811	DTC114ESA-T	D.TRANSISTOR		A,U,UB,UP
	Q 910	DTC114ESA-T	D.TRANSISTOR		
	Q 912	DTC114ESA-T	D.TRANSISTOR		
	Q 914	DTC114ESA-T	D.TRANSISTOR		
	Q 916	DTC114ESA-T	D.TRANSISTOR		
	R 200	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	US,UT,UX
	R 200	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	A,U,UB,UP
	R 201	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	A,U,UB,UP
	R 201	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	US,UT,UX
	R 210	QRD161J-123	C RESISTOR	12K 5% 1/4W	US,UT,UX

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 210	QRD161J-123	C RESISTOR	12K 5% 1/4W	A,U,UB,UP
	R 211	QRD161J-333	C RESISTOR	33K 5% 1/4W	A,U,UB,UP
	R 211	QRD161J-333	C RESISTOR	33K 5% 1/4W	US,UT,UX
	R 212	QRD161J-393	C RESISTOR	39K 5% 1/4W	US,UT,UX
	R 212	QRD161J-393	C RESISTOR	39K 5% 1/4W	A,U,UB,UP
	R 213	QRD161J-103	C RESISTOR	10K 5% 1/4W	A,U,UB,UP
	R 213	QRD161J-103	C RESISTOR	10K 5% 1/4W	US,UT,UX
	R 214	QRD161J-203	C RESISTOR	20K 5% 1/4W	US,UT,UX
	R 214	QRD161J-203	C RESISTOR	20K 5% 1/4W	A,U,UB,UP
	R 215	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	A,U,UB,UP
	R 215	QRD161J-822	C RESISTOR	8.2K 5% 1/4W	US,UT,UX
	R 216	QRD161J-203	C RESISTOR	20K 5% 1/4W	US,UT,UX
	R 216	QRD161J-203	C RESISTOR	20K 5% 1/4W	A,U,UB,UP
	R 217	QRD161J-153	C RESISTOR	15K 5% 1/4W	A,U,UB,UP
	R 217	QRD161J-153	C RESISTOR	15K 5% 1/4W	US,UT,UX
	R 218	QRD161J-103	C RESISTOR	10K 5% 1/4W	A,U,UB,UP
	R 218	QRD161J-103	C RESISTOR	10K 5% 1/4W	US,UT,UX
	R 219	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	US,UT,UX
	R 219	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	A,U,UB,UP
	R 220	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	A,U,UB,UP
	R 220	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	US,UT,UX
	R 224	QRD161J-221	C RESISTOR	220 5% 1/4W	US,UT,UX
	R 224	QRD161J-221	C RESISTOR	220 5% 1/4W	A,U,UB,UP
	R 225	QRD161J-103	C RESISTOR	10K 5% 1/4W	US,UT,UX
	R 225	QRD161J-103	C RESISTOR	10K 5% 1/4W	A,U,UB,UP
	R 226	QRD161J-393	C RESISTOR	39K 5% 1/4W	US,UT,UX
	R 226	QRD161J-393	C RESISTOR	39K 5% 1/4W	A,U,UB,UP
	R 227	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	US,UT,UX
	R 227	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	A,U,UB,UP
	R 228	QRD161J-331	C RESISTOR	330 5% 1/4W	US,UT,UX
	R 228	QRD161J-331	C RESISTOR	330 5% 1/4W	A,U,UB,UP
	R 230	QRD161J-154	C RESISTOR	150K 5% 1/4W	US,UT,UX
	R 230	QRD161J-154	C RESISTOR	150K 5% 1/4W	A,U,UB,UP
	R 234	QRD161J-104	C RESISTOR	100K 5% 1/4W	US,UT,UX
	R 234	QRD161J-104	C RESISTOR	100K 5% 1/4W	A,U,UB,UP
	R 236	QRD161J-221	C RESISTOR	220 5% 1/4W	US,UT,UX
	R 236	QRD161J-221	C RESISTOR	220 5% 1/4W	A,U,UB,UP
	R 239	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	A,U,UB,UP
	R 239	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	US,UT,UX
	R 240	QRD161J-391	C RESISTOR	390 5% 1/4W	US,UT,UX
	R 240	QRD161J-391	C RESISTOR	390 5% 1/4W	A,U,UB,UP
	R 241	QRD161J-823	C RESISTOR	82K 5% 1/4W	A,U,UB,UP
	R 241	QRD161J-823	C RESISTOR	82K 5% 1/4W	US,UT,UX
	R 801	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 802	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 803	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 804	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 805	QRD161J-105	C RESISTOR	1.0M 5% 1/4W	
	R 806	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 815	QRD161J-331	C RESISTOR	330 5% 1/4W	
	R 816	QRD167J-121	C RESISTOR	120 5% 1/4W	
	R 817	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 818	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 819	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 820	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	

BLOCK NO. 05

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 821	QRD161J-472	C RESISTOR	4.7K 5% 1/4W	
	R 822	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 823	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 824	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 825	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 826	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 827	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 828	QRD161J-154	C RESISTOR	150K 5% 1/4W	
	R 829	QRD161J-103	C RESISTOR	10K 5% 1/4W	A,U,UB,UP
	R 829	QRD161J-103	C RESISTOR	10K 5% 1/4W	US,UT,UX
	R 847	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 848	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 856	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 857	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 860	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 861	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 862	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 863	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 864	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 865	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 866	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 867	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 868	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 872	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 874	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 875	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 877	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 878	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 879	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 880	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 881	QRD161J-104	C RESISTOR	100K 5% 1/4W	
	R 882	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 883	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 884	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 885	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 886	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 887	QRD161J-563	C RESISTOR	56K 5% 1/4W	
	R 900	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 901	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 910	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 911	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 912	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 913	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 914	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 915	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 916	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 917	QRD161J-201	C RESISTOR	200 5% 1/4W	
	R 951	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 952	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 953	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 954	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 955	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 956	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 957	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 958	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 959	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 960	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 961	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 962	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 963	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 964	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 965	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 966	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 967	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 968	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 969	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 970	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 971	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 972	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 973	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 974	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 975	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 976	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 977	QRD167J-562	C RESISTOR	5.6K 5% 1/4W	
	R 978	QRD161J-103	C RESISTOR	10K 5% 1/4W	
	R 979	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 980	QRD161J-102	C RESISTOR	1.0K 5% 1/4W	
	R 981	QRD161J-122	C RESISTOR	1.2K 5% 1/4W	
	R 982	QRD161J-152	C RESISTOR	1.5K 5% 1/4W	
	R 983	QRD161J-222	C RESISTOR	2.2K 5% 1/4W	
	R 984	QRD161J-272	C RESISTOR	2.7K 5% 1/4W	
	R 985	QRD161J-392	C RESISTOR	3.9K 5% 1/4W	
	R 990	QRD161J-224	C RESISTOR	220K 5% 1/4W	
	R 991	QRD161J-333	C RESISTOR	33K 5% 1/4W	
	R 992	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 993	QRD161J-683	C RESISTOR	68K 5% 1/4W	A,U,UB,UP
	R 993	QRD161J-683	C RESISTOR	68K 5% 1/4W	US,UT,UX
	R 993	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	C,J
	RA801	QRB169J-104	R.NETWORK	100K 5% 1/6W	
	RA802	QRB169J-104	R.NETWORK	100K 5% 1/6W	
	RY 1	ESK7D24-212J4	RELAY		
⚠	R1051	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
⚠	R1052	QRD14CJ-4R7SX	C RESISTOR	4.7 5% 1/4W	
	S 951	QSW0674-001Z	TACT SWITCH		
	S 952	QSW0674-001Z	TACT SWITCH		
	S 953	QSW0674-001Z	TACT SWITCH		
	S 954	QSW0674-001Z	TACT SWITCH		
	S 955	QSW0674-001Z	TACT SWITCH		
	S 956	QSW0674-001Z	TACT SWITCH		
	S 957	QSW0674-001Z	TACT SWITCH		
	S 958	QSW0674-001Z	TACT SWITCH		
	S 959	QSW0674-001Z	TACT SWITCH		
	S 960	QSW0674-001Z	TACT SWITCH		
	S 961	QSW0674-001Z	TACT SWITCH		
	S 962	QSW0674-001Z	TACT SWITCH		
	S 963	QSW0674-001Z	TACT SWITCH		
	S 964	QSW0674-001Z	TACT SWITCH		
	S 965	QSW0674-001Z	TACT SWITCH		
	S 966	QSW0674-001Z	TACT SWITCH		
	S 967	QSW0674-001Z	TACT SWITCH		

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	S 968	QSW0674-001Z	TACT SWITCH		
	S 969	QSW0674-001Z	TACT SWITCH		
	S 970	QSW0674-001Z	TACT SWITCH		
	S 971	QSW0674-001Z	TACT SWITCH		
	S 972	QSW0674-001Z	TACT SWITCH		
	S 973	QSW0674-001Z	TACT SWITCH		
	S 974	QSW0674-001Z	TACT SWITCH		
	S 975	QSW0674-001Z	TACT SWITCH		
	S 976	QSW0674-001Z	TACT SWITCH		
	S 977	QSW0674-001Z	TACT SWITCH		
	S 978	QSW0674-001Z	TACT SWITCH		
	S 979	QSW0674-001Z	TACT SWITCH		
	S 980	QSW0674-001Z	TACT SWITCH		
	S 981	QSW0674-001Z	TACT SWITCH		
	SPACE	E3400-439	FELT SPACER		
	SP801	VYH7653-001	IC HOLDER		
	VR200	QVQ0045-B54	V.RESISTOR	MIC VR	A,U,UB,UP
	VR200	QVQ0045-B54	V.RESISTOR	MIC VR	US,UT,UX
	X 801	QAX0410-001Z	CERA LOCK		
	X 802	QAX0401-001	CRYSTAL		

■ CD Servo & Mechanism Control Board

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 251	NCS21HJ-100AY	C.CAPA. C.M	X1	
	C 252	NCS21HJ-100AY	C.CAPA. C.M	X2	
	C 253	NCB21HK-104	C CAPACITOR	VDD-VSS	
	C 254	QERF1AM-476Z	E CAPACITOR	VDD-VSS	
	C 281	NCB21HK-223AY	C CAPACITOR	/RST CD LSI	
	C 291	QERF1AM-476Z	E CAPACITOR	+5V-D.GND	
	C 601	NCB21HK-102AY	C CAPACITOR	PU E	
	C 602	NCB21HK-102AY	C CAPACITOR	PU F	
	C 603	NCB21HK-223AY	C CAPACITOR	TBAL	
	C 604	NCB21HK-223AY	C CAPACITOR	FBAL	
	C 605	NCS21HJ-271AY	C CAPACITOR	FE	
	C 606	NCS21HJ-470AY	C.CAPA. C.M	TE	
	C 607	NCB21HK-223AY	C CAPACITOR	TEBPF	
	C 608	NCB21HK-223AY	C CAPACITOR	TEBPF	
	C 609	NCB21HK-102AY	C CAPACITOR	TE	
	C 610	NCB21HK-104	C CAPACITOR	ENV	
	C 611	NCB21HK-104	C CAPACITOR	RF	
	C 612	QER41HM-105	E CAPACITOR	CAGC	
	C 613	NCS21HJ-101AY	C.CAPA. C.M	CENV	
	C 614	NCB21HK-273AY	C CAPACITOR	CEA	
	C 615	NCB21HK-472AY	C CAPACITOR	CSBDO	
	C 616	NCB21HK-103AY	C CAPACITOR	CSBRT	
	C 617	NCS21HJ-331AY	C CAPACITOR	OFT	
	C 621	NCB21HK-104	C CAPACITOR	VREF-D.GND	
	C 623	NCF21CZ-105AY	C CAPACITOR	VCC-D.GND	
	C 624	QER41AM-107	E CAPACITOR	VCC-D.GND	
	C 631	QER41CM-106	E CAPACITOR	APC +5V-BASE	
	C 632	NCF21CZ-105AY	C CAPACITOR	APC +5V-D.GND	
	C 633	NCB21HK-223AY	C CAPACITOR	PU K-VREF	
	C 651	NCS21HJ-120AY	C.CAPA. C.M	X1	
	C 652	NCS21HJ-150AY	C.CAPA. C.M	X2	
	C 653	NCB21HK-104	C CAPACITOR	VDD-VSS	
	C 654	NCB21HK-223AY	C CAPACITOR	AVDD1-AVSS1	
	C 655	QER41AM-227N	E CAPACITOR	AVDD1-AVSS1	
	C 656	NCB21HK-104	C CAPACITOR	D.GND-A.GND	
	C 657	NCB21HK-222AY	C CAPACITOR	OUTL	
	C 658	NCB21HK-222AY	C CAPACITOR	OUTR	
	C 661	NCB21HK-104	C CAPACITOR	AVDD2-AVSS2	
	C 662	QER41AM-107	E CAPACITOR	AVDD2-AVSS2	
	C 663	NCB21HK-104	C CAPACITOR	PLLF	
	C 664	NCB21HK-223AY	C CAPACITOR	IREF	
	C 665	NCB21HK-223AY	C CAPACITOR	DSLF	
	C 666	NCS21HJ-471AY	C CAPACITOR	ARF	
	C 667	NCF21CZ-105AY	C CAPACITOR	VCOF	
	C 668	NCB21HK-473AY	C CAPACITOR	VCOF	
	C 671	NCB21HK-104	C CAPACITOR	DVDD1-DVSS1	
	C 672	QER41AM-107	E CAPACITOR	DVDD1-DVSS1	
	C 801	NCB21HK-103AY	C CAPACITOR	FOD	
	C 802	NCB21HK-103AY	C CAPACITOR	TRD	
	C 811	NCS21HJ-101AY	C.CAPA. C.M	FOCUS	
	C 812	NCS21HJ-101AY	C.CAPA. C.M	SPINDLE	
	C 813	NCS21HJ-101AY	C.CAPA. C.M	FEED	
	C 814	NCS21HJ-101AY	C.CAPA. C.M	TRACKING	
	C 821	NCF21CZ-105AY	C CAPACITOR	VCC-M.GND	
	C 822	QER41AM-227N	E CAPACITOR	VCC-M.GND	

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 851	QER41CM-106	E CAPACITOR	LM VCC-M.GND	
	C 852	QER41CM-106	E CAPACITOR	RM VCC-M.GND	
	C 855	NCB21HK-104	C CAPACITOR	VCC-M.GND	
	C 859	NCF21CZ-105AY	C CAPACITOR	L MOTOR	
	C 860	NCF21CZ-105AY	C CAPACITOR	R MOTOR	
	CN151	EMV7171-115R	15FFC CONNECTOR	VIDEO CD	
	CN152	EMV5109-012B	12P CN RIG	VIDEO CD	
	CN601	EMV7171-115R	15FFC CONNECTOR	TRAVERSE	
	CN651	EMV7171-119R	CONNECTOR	MAIN	
	CN652	EMV7171-105R	CONNECTOR	OSD	
	CN653	EMV7171-113R	CONNECTOR	CD TEXT	
	CN801	VMC0075-006	6P PLUG ASSY	TRAVERSE	
	CN851	VMC0107-R03	SOCKET	DISC DETECTION	
	CN854	QGB2016K1-07	CONNECTOR	TRAY SWITCH	
	CN855	QGG2002M4-10	CONNECTOR	CAM SWITCH	
	IC251	UPD78055GC-A28	IC(MCU)		
	IC601	AN8806SB	IC C.M	RF AMP	
	IC651	MN35510	IC	DSP & DAC	
	IC801	BA6897FP-W	IC	PU DRIVE	
	IC851	TA8409S	IC	L MOTOR DRIVE	
	IC852	TA8409S	IC	R MOTOR DRIVE	
	L 851	VQP0033-100Z	INDUCTOR	VS DE-COUPLE	
	L 853	VQP0033-100Z	INDUCTOR	L MOTOR	
	L 854	VQP0033-100Z	INDUCTOR	R MOTOR	
	Q 291	2SB1357(E,F)	TR.I.M	/P.ON	
	Q 631	2SA1037AKT146	CHIP TR.C.M	APC	
	Q 842	DTA144ES	TR I/M	/DISC	
	R 251	NRSA02J-102NY	RES. C.M	DEMPHO	
	R 252	NRSA02J-102NY	RES. C.M	/OSOFF	
	R 253	NRSA02J-102NY	RES. C.M	MCS	
	R 254	NRSA02J-102NY	RES. C.M	MRDY	
	R 255	NRSA02J-102NY	RES. C.M	KCMND	
	R 256	NRSA02J-102NY	RES. C.M	MSTAT	
	R 257	NRSA02J-102NY	RES. C.M	KCLK	
	R 258	NRSA02J-102NY	RES. C.M	MREQ	
	R 259	NRSA02J-101NY	MG RESISTOR	VCDEMP	
	R 260	NRSA02J-102NY	RES. C.M	SRDATA	
	R 261	NRSA02J-102NY	RES. C.M	SRCLK	
	R 262	NRSA02J-102NY	RES. C.M	MNTO	
	R 263	NRSA02J-102NY	RES. C.M	MNT1	
	R 264	NRSA02J-102NY	RES. C.M	MNT2	
	R 265	NRSA02J-223NY	RES. C.M	/VCDRST PULL-UP	
	R 266	NRSA02J-102NY	RES. C.M	CHECKO	
	R 267	NRSA02J-102NY	RES. C.M	CHECK1	
	R 268	NRSA02J-102NY	RES. C.M	CHECK2	
	R 269	NRSA02J-102NY	RES. C.M	CHECK3	
	R 270	NRSA02J-223NY	RES. C.M	CHECKO PULL-UP	
	R 271	NRSA02J-223NY	RES. C.M	CHECK1 PULL-UP	
	R 272	NRSA02J-223NY	RES. C.M	CHECK2 PULL-UP	
	R 273	NRSA02J-223NY	RES. C.M	CHECK3 PULL-UP	
	R 274	NRSA02J-102NY	RES. C.M	HREQ	
	R 275	NRSA02J-102NY	RES. C.M	HRDY	
	R 276	NRSA02J-102NY	RES. C.M	DABCK	
	R 277	NRSA02J-102NY	RES. C.M	DALRCK	
	R 278	NRSA02J-102NY	RES. C.M	DADATA	

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 279	NRSA02J-102NY	RES. C.M	IOSEL	
	R 281	NRSA02J-102NY	RES. C.M	/RST CD LSI	
	R 282	NRSA02J-102NY	RES. C.M	/VCDRST	
	R 283	NRSA02J-102NY	RES. C.M	/RST OTHER	
	R 284	NRSA02J-102NY	RES. C.M	/RESET MICOM	
	R 285	NRSA02J-102NY	RES. C.M	OSCLK	
	R 286	NRSA02J-102NY	RES. C.M	/OSCS	
	R 287	NRSA02J-102NY	RES. C.M	OSDATA	
	R 288	NRSA02J-102NY	RES. C.M	SHIFT	
	R 289	NRSA02J-223NY	RES. C.M	SHIFT PULL-UP	
	R 291	NRSA02J-122NY	MG RESISTOR	/P.ON	
	R 292	NRSA02J-103NY	RES. C.M	BASE-EMITTER	
	R 293	NRSA02J-102NY	RES. C.M	P.ON	
	R 601	NRSA02J-274NY	MG RESISTOR	TBAL	
	R 602	NRSA02J-154NY	RES. C.M	FBAL	
	R 603	NRSA02J-273NY	MG RESISTOR	FE	
	R 604	NRSA02J-114NYM	RES. C.M	TE	
	R 605	NRSA02J-104NY	MG RESISTOR	TEBPF	
	R 606	NRSA02J-473NY	MG RESISTOR	TEBPF	
	R 607	NRSA02J-822NY	MG RESISTOR	TE	
	R 611	NRSA02J-123NY	RES. C.M	RF	
	R 612	NRSA02J-125NY	MG RESISTOR	CSBRT	
	R 631	NRSA02J-2R2NYM	RES. C.M	+5V DE-COUPLE	
	R 632	NRSA02J-100NY	MG RESISTOR	APC EMITTER	
	R 634	NRSA02J-120NY	MG RESISTOR	APC COLECTOR	
	R 635	NRSA02J-121NY	MG RESISTOR	PU K	
	R 636	NRSA02J-910NY	RES. C.M	PU LD	
	R 651	NRSA02J-271NY	MG RESISTOR	X2	
	R 652	NRSA02J-220NY	MG RESISTOR	AVDD1 DE-COUPLE	
	R 657	NRSA02J-102NY	RES. C.M	OUTL	
	R 658	NRSA02J-102NY	RES. C.M	OUTR	
	R 661	NRSA02J-220NY	MG RESISTOR	AVDD2 DE-COUPLE	
	R 662	NRSA02J-471NY	RES. C.M	PLLF	
	R 663	NRSA02J-124NY	MG RESISTOR	IREF	
	R 665	NRSA02J-683NY	MG RESISTOR	ARF	
	R 666	NRSA02J-155NY	MG RESISTOR	1.5M 5% 1/10W	
	R 667	NRSA02J-562NY	MG RESISTOR	VCOF	
	R 671	NRSA02J-102NY	RES. C.M	CDBCK	
	R 672	NRSA02J-102NY	RES. C.M	CDLRCK	
	R 673	NRSA02J-102NY	RES. C.M	CDDATA	
	R 674	NRSA02J-101NY	MG RESISTOR	TX	
	R 675	NRSA02J-102NY	RES. C.M	MCLK	
	R 676	NRSA02J-102NY	RES. C.M	MDATA	
	R 677	NRSA02J-102NY	RES. C.M	MLD	
	R 678	NRSA02J-102NY	RES. C.M	BLKCK	
	R 679	NRSA02J-102NY	RES. C.M	SQCK	
	R 680	NRSA02J-102NY	RES. C.M	SUBQ	
	R 681	NRSA02J-102NY	RES. C.M	DMUTE	
	R 682	NRSA02J-102NY	RES. C.M	STAT	
	R 683	NRSA02J-102NY	RES. C.M	LDON	
	R 684	NRSA02J-271NY	MG RESISTOR	XCLK	
	R 685	NRSA02J-102NY	RES. C.M	SUBC	
	R 686	NRSA02J-101NY	MG RESISTOR	SBCK	
	R 687	NRSA02J-102NY	RES. C.M	/CLDCK	
	R 688	NRSA02J-101NY	MG RESISTOR	IPFLAG	

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 689	NRSA02J-102NY	RES. C.M	DEMPH	
	R 690	NRSA02J-101NY	MG RESISTOR	DADATA	
	R 691	NRSA02J-101NY	MG RESISTOR	DALRCK	
	R 692	NRSA02J-101NY	MG RESISTOR	DABCK	
	R 693	NRSA02J-471NY	RES. C.M	470 5% 1/10W	
	R 694	NRSA02J-102NY	RES. C.M	XCLK	
	R 801	NRSA02J-182NY	MG RESISTOR	FOD	
	R 802	NRSA02J-472NY	RES. C.M	FOD	
	R 803	NRSA02J-222NY	MG RESISTOR	TRD	
	R 804	NRSA02J-683NY	MG RESISTOR	KICK	
	R 805	NRSA02J-822NY	MG RESISTOR	TVD	
	R 806	NRSA02J-223NY	RES. C.M	TRV	
	R 807	NRSA02J-222NY	MG RESISTOR	ECS	
	R 808	NRSA02J-223NY	RES. C.M	ECM	
	R 811	NRSA02J-473NY	MG RESISTOR	/DRMUTE	
	R 831	NRSA02J-151NY	MG RESISTOR	/REST	
	R 832	NRSA02J-103NY	RES. C.M	/REST PULL-UP	
	R 842	NRSA02J-473NY	MG RESISTOR	/DISC	
	R 851	NRSA02J-102NY	RES. C.M	LMUP	
	R 852	NRSA02J-102NY	RES. C.M	RMUP	
	R 853	NRSA02J-102NY	RES. C.M	LMDOWN	
	R 854	NRSA02J-102NY	RES. C.M	RMDOWN	
	R 855	NRSA02J-102NY	RES. C.M	LM VCC-VREF	
	R 856	NRSA02J-102NY	RES. C.M	RM VCC-VREF	
	R 859	NRSA02J-181NY	MG RESISTOR	VCC DE-COUPLE	
	R 861	NRSA02J-102NY	RES. C.M	1SSW	
	R 862	NRSA02J-102NY	RES. C.M	2SSW	
	R 863	NRSA02J-102NY	RES. C.M	3SSW	
	R 864	NRSA02J-102NY	RES. C.M	1MSW	
	R 865	NRSA02J-102NY	RES. C.M	2MSW	
	R 866	NRSA02J-102NY	RES. C.M	3MSW	
	R 871	NRSA02J-223NY	RES. C.M	1SSW PULL-UP	
	R 872	NRSA02J-223NY	RES. C.M	2SSW PULL-UP	
	R 873	NRSA02J-223NY	RES. C.M	3SSW PULL-UP	
	R 874	NRSA02J-223NY	RES. C.M	1MSW PULL-UP	
	R 875	NRSA02J-223NY	RES. C.M	2MSW PULL-UP	
	R 876	NRSA02J-223NY	RES. C.M	3MSW PULL-UP	
	R 880	NRSA02J-102NY	RES. C.M	CAM0	
	R 881	NRSA02J-102NY	RES. C.M	CAM1	
	R 882	NRSA02J-102NY	RES. C.M	CAM2	
	R 883	NRSA02J-102NY	RES. C.M	CAM3	
	R 884	NRSA02J-102NY	RES. C.M	CAM4	
	R 885	NRSA02J-102NY	RES. C.M	CAM5	
	R 886	NRSA02J-102NY	RES. C.M	CAM6	
	R 887	NRSA02J-102NY	RES. C.M	CAM7	
	R 890	NRSA02J-223NY	RES. C.M	CAM0 PULL-UP	
	R 891	NRSA02J-223NY	RES. C.M	CAM1 PULL-UP	
	R 892	NRSA02J-223NY	RES. C.M	CAM2 PULL-UP	
	R 893	NRSA02J-223NY	RES. C.M	CAM3 PULL-UP	
	R 894	NRSA02J-223NY	RES. C.M	CAM4 PULL-UP	
	R 895	NRSA02J-223NY	RES. C.M	CAM5 PULL-UP	
	R 896	NRSA02J-223NY	RES. C.M	CAM6 PULL-UP	
	R 897	NRSA02J-223NY	RES. C.M	CAM7 PULL-UP	
	W 601	EWF102-047	TER.WIRE	D.GND	
	X 251	QAX0360-001Z	CRYSTAL	FOR IC251	
	X 651	VCX5016-934V	CRYSTAL	FOR IC651	

■ CD Tray Select Board

BLOCK NO. 05

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN804	QGB2016J1-07	CONNECTOR		
	SW 1	QSW0507-001	LEVER SWITCH		
	SW 2	QSW0507-001	LEVER SWITCH		
	SW 3	QSW0507-001	LEVER SWITCH		
	SW 4	QSW0507-001	LEVER SWITCH		
	SW 5	QSW0507-001	LEVER SWITCH		
	SW 6	QSW0507-001	LEVER SWITCH		
	CN805	QGB2021L1-10	CONNECTOR		

■ Head Amplifier & Mechanism Control Board

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 101	NCS21HJ-561AY	C.CAPA. C.M	560PF 5% 50V	
	C 102	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V	
	C 103	NCS21HJ-561AY	C.CAPA. C.M	560PF 5% 50V	
	C 104	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 105	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 106	NCB21HK-333AY	C CAPACITOR	.033MF 10% 50V	
	C 107	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 108	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V	
	C 109	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 110	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 111	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 112	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 113	NCB21HK-332AY	C CAPACITOR	3300PF 10% 50V	
	C 114	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 115	NCB21HK-153AY	C CAPACITOR	.015MF 10% 50V	
	C 116	NCB21HK-822AY	C CAPACITOR	8200PF 10% 50V	
	C 117	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
	C 118	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 119	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 120	NCS21HJ-330AY	C CAPACITOR	33PF 5% 50V	
	C 201	NCS21HJ-561AY	C.CAPA. C.M	560PF 5% 50V	
	C 202	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V	
	C 203	NCS21HJ-561AY	C.CAPA. C.M	560PF 5% 50V	
	C 204	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 205	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 206	NCB21HK-333AY	C CAPACITOR	.033MF 10% 50V	
	C 207	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 208	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V	
	C 209	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 210	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	
	C 211	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 212	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 213	NCB21HK-332AY	C CAPACITOR	3300PF 10% 50V	
	C 214	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 215	NCB21HK-153AY	C CAPACITOR	.015MF 10% 50V	
	C 216	NCB21HK-822AY	C CAPACITOR	8200PF 10% 50V	
	C 217	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
	C 218	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 219	NCB21HK-563AY	C CAPACITOR	.056MF 10% 50V	
	C 220	NCS21HJ-330AY	C CAPACITOR	33PF 5% 50V	
	C 301	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 302	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 303	QEK41CM-226	E CAPACITOR	22MF 20% 16V	
	C 304	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 305	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V	
	C 306	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 308	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V	
	C 309	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V	
	C 310	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
	C 311	NCB21HK-682AY	C.CAPA. C.M	6800PF 10% 50V	
	C 313	QEKF1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 314	QCZ0205-155	ML C CAP I/M	1.5MF	
	C 315	QCZ0205-155	ML C CAP I/M	1.5MF	
	C 316	QFG32AJ-103ZN	PP CAPACITOR	.010MF 5% 100V	
	C 318	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 319	QFG32AJ-821ZN	TF CAPACITOR	820PF 5% 100V	
	C 321	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 322	QFG32AJ-152ZN	M CAPACITOR	1500PF 5% 100V	
	C 327	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 328	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 329	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 330	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 332	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 335	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 336	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 337	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 338	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 339	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 340	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
	C 341	QEKF1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 342	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 343	QET41CM-106	E CAPACITOR	10MF 20% 16V	
	C 344	NCB21HK-472AY	C CAPACITOR	4700PF 10% 50V	
	C 345	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V	
	CN301	VMC0163-R06	CONNECTOR		
	CN302	VMC0163-R06	CONNECTOR		
	CN303	QGB2011M1-10	PWB CONECTOR		
	CN304	QGB2011M1-10	PWB CONECTOR		
	CN305	VMC0163-R10	CONNECTOR		
	CN306	VMC0163-R11	CONNECTOR		
	D 301	MA704A	S.K.DIODE		
	D 302	HSM2838C	DIODE		
	D 307	HZM5.1NB2-X	CHIP Z DIODE CM		
	D 308	HZM5.1NB2-X	CHIP Z DIODE CM		
	D 309	MA704A	S.K.DIODE		
	IC301	BA3126N	IC		
	IC302	AN7345K	IC		
	IC303	BU4094BCF-X	IC		
	IC304	BU4094BCF-X	IC		
	L 301	QQR0620-001	OSC COIL(BIAS)		
	L 303	VQP0033-100Z	INDUCTOR		
	Q 101	DTC114TKT146	TRANSISTOR		
	Q 102	DTC144TKA-X	TRANSISTOR		
	Q 103	DTC144EKA-X	TRANSISTOR		
	Q 104	DTC114TKT146	TRANSISTOR		
	Q 105	2SC2001(L,K)	TRANSISTOR		
	Q 201	DTC114TKT146	TRANSISTOR		
	Q 202	DTC144TKA-X	TRANSISTOR		
	Q 203	DTC144EKA-X	TRANSISTOR		
	Q 204	DTC114TKT146	TRANSISTOR		
	Q 205	2SC2001(L,K)	TRANSISTOR		
	Q 301	DTC144TKA-X	TRANSISTOR		
	Q 302	2SC2001(L,K)	TR I/M		
	Q 303	2SC2001(L,K)	TR I/M		
	Q 304	2SC2001(L,K)	TRANSISTOR		
	Q 305	2SC2001(L,K)	TRANSISTOR		
	Q 306	2SC1623(6)	TRANSISTOR		
	Q 307	2SC1623(6)	TRANSISTOR		
	Q 308	2SC1623(6)	TRANSISTOR		
	Q 309	2SC1623(6)	TRANSISTOR		

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	Q 312	2SB562(C)	TRANSISTOR		
	Q 313	2SC1623(6)	TRANSISTOR		
	Q 314	2SB562(C)	TRANSISTOR		
	Q 315	2SC1623(6)	TRANSISTOR		
	Q 316	2SA952(L,K)	TRANSISTOR		
	Q 317	DTC124EK	TRANSISTOR		
	Q 318	DTA144EKA-X	TRANSISTOR		
	Q 319	DTC144EKA-X	TRANSISTOR		
	Q 320	DTC144EKA-X	TRANSISTOR		
	Q 321	DTC144EKA-X	TRANSISTOR		
	Q 322	DTC144EKA-X	TRANSISTOR		
	Q 323	2SC1623(6)	TRANSISTOR		
	R 102	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 103	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
	R 105	NRSA02J-220NY	MG RESISTOR	22 5% 1/10W	
	R 106	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
	R 107	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
	R 108	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 109	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 110	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 111	NRSA02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
	R 112	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
	R 113	NRSA02J-271NY	MG RESISTOR	270 5% 1/10W	
	R 114	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
	R 115	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
	R 116	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W	
	R 117	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
	R 118	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 119	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
	R 120	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 121	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
	R 202	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 203	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
	R 205	NRSA02J-220NY	MG RESISTOR	22 5% 1/10W	
	R 206	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
	R 207	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
	R 208	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 209	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 210	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 211	NRSA02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
	R 212	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
	R 213	NRSA02J-271NY	MG RESISTOR	270 5% 1/10W	
	R 214	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
	R 215	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
	R 216	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W	
	R 217	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
	R 218	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 219	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
	R 220	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 221	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W	
	R 301	NRS181J-221NY	MG RESISTOR	220 5% 1/8W	
	R 302	NRS181J-101NY	MG RESISTOR	100 5% 1/8W	
	R 304	NRSA02J-393NY	MG RESISTOR	39K 5% 1/10W	
	R 305	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
	R 306	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 307	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
	R 308	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 309	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 310	NRS181J-820NY	MG RESISTOR	82 5% 1/8W	
	R 311	NRS181J-820NY	MG RESISTOR	82 5% 1/8W	
	R 313	NRSA02J-3R3NYM	RES. C.M	3.3 5% 1/10W	
	R 314	NRSA02J-223NY	RES. C.M	22K 5% 1/10W	
	R 315	NRSA02J-100NY	MG RESISTOR	10 5% 1/10W	
	R 316	NRSA02J-223NY	RES. C.M	22K 5% 1/10W	
	R 317	NRSA02J-100NY	MG RESISTOR	10 5% 1/10W	
	R 318	NRSA02J-123NY	RES. C.M	12K 5% 1/10W	
	R 319	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 321	NRSA02J-123NY	RES. C.M	12K 5% 1/10W	
	R 322	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
	R 327	NRSA02J-474NY	MG RESISTOR	470K 5% 1/10W	
	R 328	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 329	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 330	NRSA02J-ORONY	RES. C.M	5% 1/10W	
	R 335	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 336	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
	R 338	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 339	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 341	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 343	NRSA02J-ORONY	RES. C.M	5% 1/10W	
	R 345	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 346	NRSA02J-ORONY	RES. C.M	5% 1/10W	
	R 347	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
	R 348	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
	R 350	NRSA02J-472NY	RES. C.M	4.7K 5% 1/10W	
	R 351	NRSA02J-151NY	MG RESISTOR	150 5% 1/10W	
	R 353	NRSA02J-472NY	RES. C.M	4.7K 5% 1/10W	
	R 354	NRSA02J-151NY	MG RESISTOR	150 5% 1/10W	
	R 355	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
	R 356	NRSA02J-103NY	RES. C.M	10K 5% 1/10W	
	R 357	NRSA02J-103NY	RES. C.M	10K 5% 1/10W	
	R 358	NRSA02J-123NY	RES. C.M	12K 5% 1/10W	
	R 359	NRSA02J-123NY	RES. C.M	12K 5% 1/10W	
	R 360	NRSA02J-433NYT	RES. C.M **	43K 5% 1/10W	
	R 361	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
	R 362	NRSA02J-123NY	RES. C.M	12K 5% 1/10W	
	R 363	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
	R 364	NRSA02J-433NYT	RES. C.M **	43K 5% 1/10W	
	R 365	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
	R 366	NRSA02J-123NY	RES. C.M	12K 5% 1/10W	
	R 367	NRSA02J-102NY	RES. C.M	1.0K 5% 1/10W	
	R 368	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
	R 369	NRSA02J-391NY	MG RESISTOR	390 5% 1/10W	
	R 371	NRS181J-222NY	MG RESISTOR	2.2K 5% 1/8W	
	R 374	NRSA02J-912NY	RES. C.M	9.1K 5% 1/10W	
	R 375	NRSA02J-683NY	MG RESISTOR	68K 5% 1/10W	
	R 376	NRS181J-6R8NY	MG RESISTOR	6.8 5% 1/8W	
	VR101	QVPA603-503A	SEMI V RESISTOR		
	VR201	QVPA603-503A	SEMI V RESISTOR		
	VR301	QVPA603-103M	SEMI V RESISTOR		
	WIRE	VWS304-10A13K	FLAT WIRE		

■ Reel Pulse Board

BLOCK NO. 07

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN 1	EMV7159-010	10P PLUG ASSY		
	D 1	1SR139-100	SI DIODE		
	IC 1	SG-105F3-BB/C	PHOTO SENSER		
	P 1	VMZ0015-002	POST PIN		
	SW 2	MXS00220MVL0	CASSETTE SWITCH	TAPE	
	SW 4	MXS00220MVL0	CASSETTE SWITCH	70U	
	SW 6	QSW0507-001	SWITCH		

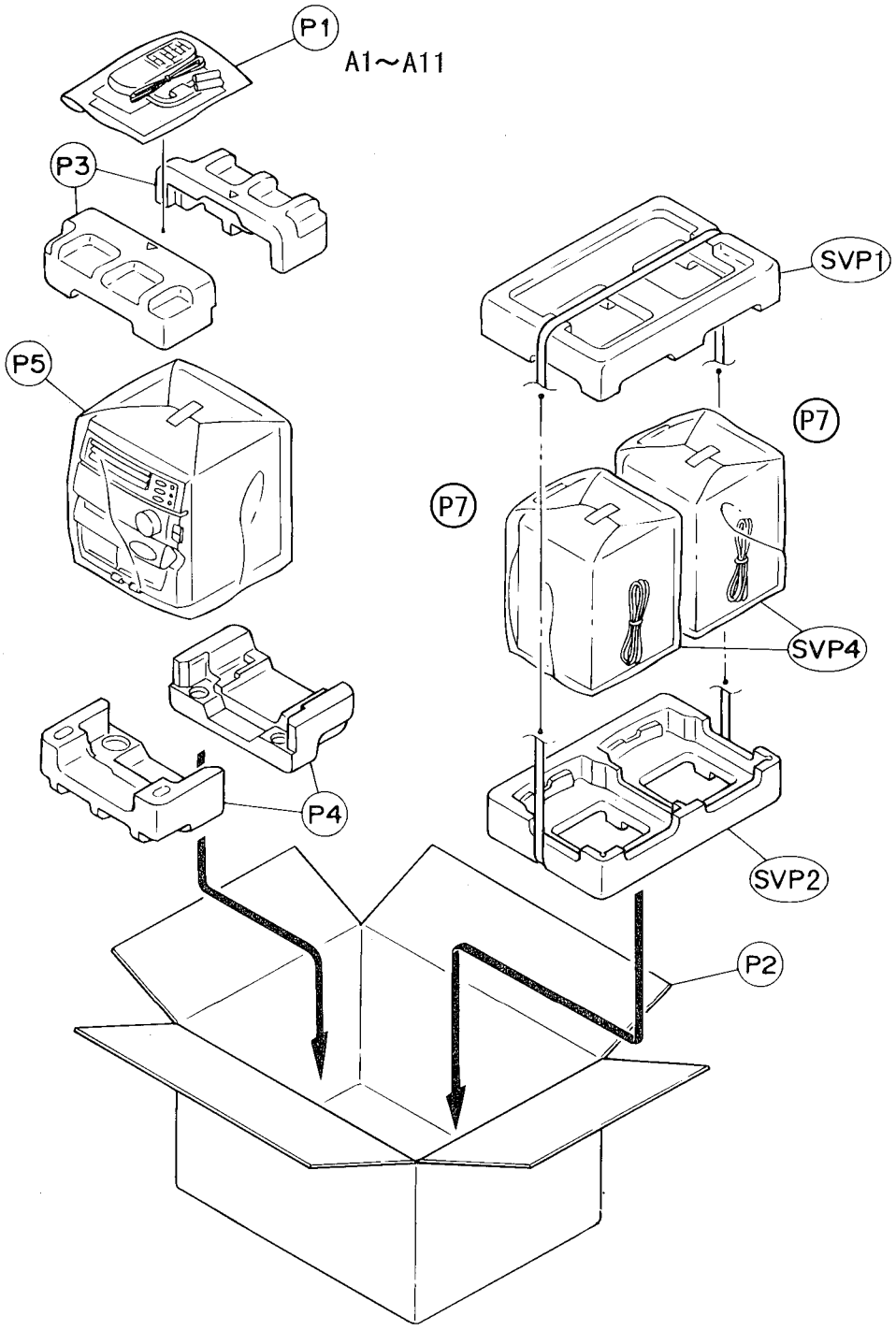
■ Reel Pulse Board

BLOCK NO. 08

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN 1	EMV7159-010	10P PLUG ASSY		
	D 1	1SR139-100	SI DIODE		
	IC 1	SG-105F3-BB/C	PHOTO SENSER		
	P 1	VMZ0015-002	POST PIN		
	SW 1	MXS00220MVL0	CASSETTE SWITCH	R.REC	
	SW 2	MXS00220MVL0	CASSETTE SWITCH	TAPE	
	SW 4	MXS00220MVL0	CASSETTE SWITCH	70U	
	SW 5	MXS00220MVL0	CASSETTE SWITCH	F.REC	
	SW 6	QSW0507-001	SWITCH		

Accessories and Packing Materials and Parts List

Block No. M 5 M M
Block No. M 6 M M



BLOCK NO. M5MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	P 1	E309758-002	POLY BAG	FOR INSTRUCTION	1		
	P 2	GV20011-001A	CARTON ASSY		1	C,J	
		GV20011-002A	CARTON ASSY		1	A,U,UB,UP	
		GV20011-002A	CARTON ASSY		1	US,UT,UX	
	P 3	GV10005-001A	CUSHION UPPER		1		
	P 4	GV10006-001A	CUSHION BOTTOM		1		
	P 5	QPC06506515P	POLY BAG	FOR SET	1		
	P 7	138736001051	POLY BAG	FOR SPEAKER	2		
	SVP 1	720-TPD402-00	CUSHION UPPER	FOR SPEAKER	1		
	SVP 2	720-BPD402-00	CUSHION BOTTOM	FOR SPEAKER	1		

BLOCK NO. M6MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	GVT0003-001A	INSTRUCTIONS		1	J	
		GVT0003-002A	INSTRUCTIONS		1	C	
		GVT0003-003A	INSTRUCTIONS		1	U,UB,US	
		GVT0003-003A	INSTRUCTIONS		1	UT,UX	
		GVT0003-004A	INSTRUCTIONS		1	UP	
		GVT0003-005A	INSTRUCTIONS		1	A	
	A 2	BT-56004-5	WARRANTY CARD		1	UP	
		BT-52002-1	WARRANTY CARD		1	C	
		BT-56001-1	WARRANTY CARD		1	A	
	A 3	BT-56002-1	SVC CENTER LIST		1	A	
		BT-20071B	SVC CENTER LIST		1	C	
	4	BT-20044G	SAFETY INST.		1	C,J	
	A 5	BT-51006-1	REGIST CARD		1	J	
	A 6	QAL0014-001	AM LOOP ANT		1		
	A 7	EWP201-011	B. IN ANT		1		
	A 8	RM-SED402TUKP	REMOCON		1	C,J	
		RM-SED402TXUKP	REMOCON		1	A,U,UB,UP	
		RM-SED402TXUKP	REMOCON		1	US,UT,UX	
	A 9	R6SPTT/2STS	BATTERY		1		
	A 10	ENZ2202-001	AC PLUG ADAPTER		1	U,US	
	A 11	VMZ0139-001	CONTHI PLUG		1	UT,UX	
	SVP 4	SPD452H-SPBOX	SPEAKER BOX		2		

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